

This document gives pertinent information concerning the reissuance of the VPDES Permit listed below. This permit is being processed as a Minor, Industrial permit. The discharge results from storm water runoff from the operation of a wood preserving facility. This permit action consists of updating the proposed effluent limits to reflect the current Virginia WQS (effective January 6, 2011) and updating permit language, as appropriate, to reflect current agency guidance. The effluent limitations and special conditions contained in this permit will maintain the Water Quality Standards of 9VAC25-260-00 et seq.

1. Facility Name and Mailing Address: Hoover Treated Wood Products  
18315 House Drive  
Milford, VA 22514  
  
SIC Code : 2491 - Wood Preserving  
2499 - Wood Products  
  
Facility Location: 18315 House Drive  
Milford, VA 22514  
County: Caroline  
  
Facility Contact Name: Christopher Clark  
Telephone Number: (804) 633-4393
2. Permit No.: VA0088714  
Expiration Date of previous permit: August 24, 2011  
Other VPDES Permits associated with this facility: None  
Air Registration Number – 40830  
Other Permits associated with this facility: EPA ID Number (Waste) – VAD988190021  
Tank Registration Number - 3014021  
E2/E3/E4 Status: NA
3. Owner Name: Hoover Treated Wood Products, Inc.  
Owner Contact/Title: Randy Edmondson /  
Manager of Engineering Services  
Telephone Number: (706) 595-7355
4. Application Complete Date: March 14, 2011  
Permit Drafted By: Susan Mackert  
Date Drafted: August 1, 2011  
Draft Permit Reviewed By: Alison Thompson  
Date Reviewed: August 4, 2011  
Draft Permit Reviewed By: Bryant Thomas  
Date Reviewed: August 18, 2011  
Public Comment Period : Start Date: September 23, 2011  
End Date: October 24, 2011
5. Receiving Waters Information:  
Receiving Stream Name: Mattaponi River, UT  
Drainage Area at All Outfalls: < 5 square miles  
Stream Code: Outfall 001 & 003 8-XDV  
Stream Code: Outfall 004 & 006 8-XJI  
River Mile: Outfall 001 1.15  
River Mile: Outfall 004 0.57  
River Mile: Outfall 003 1.05  
River Mile: Outfall 006 0.63  
Stream Basin: York  
Subbasin: None  
Section: 3  
Stream Class: III  
Special Standards: None  
Waterbody ID: VAN-F17R  
7Q10 Low Flow: 0 MGD  
7Q10 High Flow: 0 MGD  
1Q10 Low Flow: 0 MGD  
1Q10 High Flow: 0 MGD  
Harmonic Mean Flow: 0 MGD  
30Q5 Flow: 0 MGD  
303(d) Listed: Receiving Stream - No  
30Q10 Flow: 0 MGD  
303(d) Listed: Downstream - Yes (fish consumption, recreation)  
TMDL Approved: Receiving Stream - No  
Date TMDL Approved: NA  
TMDL Approved: Downstream - No  
Date TMDL Approved: NA

It is staff's best professional judgement that based on a drainage area of 5 square miles or less, critical flows will be equal to 0.

## 6. Statutory or Regulatory Basis for Special Conditions and Effluent Limitations:

- |   |   |
|---|---|
| <input checked="" type="checkbox"/> State Water Control Law | <input checked="" type="checkbox"/> EPA Guidelines          |
| <input checked="" type="checkbox"/> Clean Water Act         | <input checked="" type="checkbox"/> Water Quality Standards |
| <input checked="" type="checkbox"/> VPDES Permit Regulation | <input type="checkbox"/> Other                              |
| <input checked="" type="checkbox"/> EPA NPDES Regulation    |   |

## 7. Licensed Operator Requirements: NA

## 8. Reliability Class: NA

## 9. Permit Characterization:

- |   |   |   |
|---|---|---|
| <input checked="" type="checkbox"/> Private | <input type="checkbox"/> Effluent Limited                   | <input type="checkbox"/> Possible Interstate Effect       |
| <input type="checkbox"/> Federal            | <input checked="" type="checkbox"/> Water Quality Limited   | <input type="checkbox"/> Compliance Schedule Required     |
| <input type="checkbox"/> State              | <input type="checkbox"/> Toxics Monitoring Program Required | <input type="checkbox"/> Interim Limits in Permit         |
| <input type="checkbox"/> POTW               | <input type="checkbox"/> Pretreatment Program Required      | <input type="checkbox"/> Interim Limits in Other Document |
| <input type="checkbox"/> TMDL               |   |   |

**10. Wastewater Sources and Treatment Description:**

Hoover Treated Wood Products receives lumber, plywood, and timber via truck with some product received by rail. These purchased products are then pressure treated with waterborne fire retardant chemicals and waterborne preservative chemicals (Chromated Copper Arsenate (CCA), Alkaline Copper Quaternary (ACQ), Exterior Fire Retardant (Fire-X), and Pyro-Guard Interior Fire Retardant). A brief description of these products is provided later within this section of the Fact Sheet. A 40 CFR Subpart W drip pad is utilized with pressure treating activities.

Once products have been pressure treated the product is re-dried utilizing diesel fired steam boiler dry kilns. All finished inventory of kiln dried after treatment wood is protected from the rain by the application of plastic packaging. Finished inventory is stored on site prior to shipping.

All liquid products are stored within secondary containment. Storm water that collects within the containment area is collected and used as process water. The area has a closed loop system.

All of the shipping, storage and green lumber areas are unpaved. The drip pad, storage pad, and a portion of the treated lumber storage are covered and paved.

Chromated Copper Arsenate (CCA)

CCA is a chemical wood preservative containing chromium, copper and arsenic. CCA is used in pressure treated wood to protect wood from rotting due to insects and microbial agents. EPA has classified CCA as a restricted use product, for use only by certified pesticide applicators.

CCA has been used to pressure treat lumber since the 1940s. Since the 1970s, the majority of the wood used in outdoor residential settings has been CCA-treated wood. Pressure treated wood containing CCA is no longer being produced for use in most residential settings, including decks and play sets.

Alkaline Copper Quaternary (ACQ)

ACQ is a water based wood preservative that prevents decay from fungi and insects. There are currently four standardized ACQ formulations. The different formulations allow flexibility in achieving compatibility with different wood species and end use applications. All ACQ types contain two active ingredients which may vary within the following limits: copper oxide (62% - 71%), which is the primary fungicide and insecticide, and a quaternary ammonium compound (29% - 38%), which provides additional fungicide and insect resistance properties.

Water based preservatives like ACQ leave a dry, paintable surface. ACQ is registered for use on lumber, timbers, landscape ties, fence posts, building and utility poles, land, freshwater, and marine pilings, sea walls, decking, wood shingles, and other wood structures.

Pyro-Guard

Pyro-Guard is pressure-impregnated, third-generation, interior fire-retardant treated lumber and plywood for enclosed structural applications. This product is not considered hazardous for Superfund Amendments and Reauthorization Act (SARA) Title III sections 311/312.

Exterior Fire-X

Exterior Fire-X is pressure-impregnated fire-retardant lumber and plywood that provides tested fire protection for applications directly exposed to the weather or high humidity, outdoors as well as indoors. This product is not considered hazardous for SARA Title III sections 311/312.

Storm Water Discharges

The only discharge from the facility is as a result of storm water runoff. Storm water runoff from the site discharges via four outfalls (001, 003, 004, and 006).

Outfall 001 and Outfall 003

Outfall 001 and Outfall 003 are located on the western border of the property. Storm water drains to the north from the production, stacker, and white wood storage areas. Discharge is to an unnamed tributary of the Mattaponi River.

Outfall 004 and Outfall 006

Outfall 004 and Outfall 006 are located on the eastern border of the property. Storm water drains to the south from the treated lumber storage area. Discharge is to an unnamed tributary of the Mattaponi River.

See Attachment 1 for the NPDES Permit Rating Worksheet. Please note the rating of this facility has changed with this reissuance due to the removal of the Toxicity Management Program (TMP). See Section 21 of this Fact Sheet for additional information.

See Attachment 2 for a facility schematic/diagram.

TABLE 1 – Outfall Description

Outfall Number	Discharge Sources	Treatment	Maximum Daily Flow (MGD)	Outfall Latitude and Longitude
001	Industrial Storm Water	None	0.0674	38° 00' 40.89? N 77° 21' 57.53? W
003	Industrial Storm Water	None	0.0726	38° 00' 41.20? N 77° 22' 4.05? W
004	Industrial Storm Water	None	0.0459	38° 00' 30.20? N 77° 21' 58.73? W
006	Industrial Storm Water	None	0.0637	38° 00' 30.02? N 77° 22' 2.69? W
See Attachment 3 for (Bowling Green, DEQ #169D) topographic map.				

**11. Sludge Treatment and Disposal Methods:**

Hoover Treated Wood Products is an industrial facility that pressure treats wood products. The chemicals used are recycled within the treatment system. Any solid material accumulated is returned to the chemical supplier for treatment and disposal in accordance with RCRA Hazardous Waste Permit VAD988190021 and hazardous waste regulations. The facility does not produce sewage sludge and does not treat domestic sewage.

- 12. Discharges, Intakes, Monitoring Stations, Other Items in Vicinity of Discharge:** The facilities and monitoring stations listed below either discharge to or are located within the following waterbody: VAN-F17R

TABLE 2

8-MPN083.62	DEQ monitoring station located approximately 7 miles downstream of the outfalls located on the Mattaponi River at the Route 301 bridge crossing.
VA0020737	Bowling Green Wastewater Treatment Plant (Mattaponi River, UT)
VAR051082	EM Gray and Son, Incorporated (Mattaponi River, UT)
VAR051092	U.S. Army – Fort A.P. Hill POL Facility (Catlett Creek)
VAR051126	Dejarnette Lumber Company (Mattaponi River, UT)

**13. Material Storage:**

TABLE 3 - Material Storage

Materials Description	CAPACITY (Gallons)	APPROXIMATE ANNUAL USAGE (Gallons)
Well Water Storage Tank	15,000	1,000,000
Water Tank	15,000	2,000,000
Phosphoric Acid Storage	10,000	220,000
Pyro-Guard Mix Tank	15,000	2,400,000
CCA Concentrate Storage	10,000	20,000
Urea Storage	10,000	220,000
Pyro-Guard Work Tank #2	15,000	1,200,000
CCA Work Tank #1	15,000	300,000
CCA Work Tank #2	15,000	300,000
Pyro-Guard Work Tank #3	15,000	1,200,000

TABLE 3 - Material Storage (Continued)

Materials Description	CAPACITY (Gallons)	APPROXIMATE ANNUAL USAGE (Gallons)
Exterior Fire X Clear Work Tank	15,000	125,000
Exterior Fire X Blue Work Tank	15,000	125,000
Diesel Fuel Storage #1	10,000	225,000
Diesel Fuel Storage #2	7,500	225,000
CCA Recycle/Process	2,200	100,000
Pyro- Guard Recycle/Process	1,500	250,000
XFX Recycle/Process	1,500	50,000
Waste Oil Burner Feed Tank	1,000	2,000
CCA Work Tank #7	16,000	750,000
Caustic Soda Storage	10,000	80,000
Vacuum Chill Water	575	None – Flow Through Tank For Heat Exchanger
Dura-Guard Recycle/Process Tank (MCA)	10,000	50,000
Hydraulic Oil Reserve Stacker 1	275	100
Hydraulic Oil Reserve Stacker 2	275	100
Hydraulic Oil Reserve Stacker 3	275	100
Hydraulic Oil Reserve Stacker 4	275	100
Waste Oil Accumulation Tank	250	2,000
Hydraulic Oil Storage	550	3,000
Motor Oil 30 W Storage	275	600
Motor Oil 15 W40 Storage	550	1,000
F035 Hazardous Waste Steel Drums	55	990
DOT Formaldehyde Totes	300	1,800
Gasoline Skid Tank	550	2,000
Diesel Fuel Storage XFX Boiler	550	3,000
Pyro-Guard Concentrate	10,000	250,000

14. **Site Inspection:** Performed by Susan Mackert on August 30, 2011. The site visit confirms that the application package received on March 1, 2011, is accurate and representative of actual site conditions. The site visit memo can be found as Attachment 4.

15. **Receiving Stream Water Quality and Water Quality Standards:**

a) Ambient Water Quality Data

The nearest Department of Environmental Quality ambient monitoring station, 8-MPN083.62, is located in segment VAN-F17R\_MPN01A02 approximately 7 miles downstream on the Mattaponi River from the outfall locations at the Route 301 bridge crossing. This segment begins at the confluence with an unnamed tributary, draining from Goose Pond, and continues downstream until the confluence with Polecat Creek. The receiving streams, two different unnamed tributaries (swamps) to the Mattaponi River, are not listed on the current 303(d) list.

The 2010 Virginia Water Quality Assessment 305(b)/303(d) Integrated Report (IR) gives an impaired classification for the following downstream locations:

▪ **Recreation Use Impairment**

A segment of the Mattaponi River, approximately 4.8 miles downstream of the outfall locations, is listed with a recreation use impairment due to exceedances of the *E. coli* criterion. Sufficient excursions from the maximum *E. coli* bacteria criterion (4 of 17 samples – 23.5%) were recorded at DEQ's ambient water quality monitoring station (8-MPN083.62) at the Route 301 bridge crossing to assess this stream segment as not supporting of the recreation use goal for the 2010 water quality assessment.

- Fish Consumption Use Impairment (Mercury)

Segments of the Mattaponi River, beginning approximately 36 miles downstream of the outfall locations, are listed with a fish consumption use impairment due to mercury in fish tissue. The fish consumption use is categorized as impaired due to a Virginia Department of Health, Division of Health Hazards Control, mercury fish consumption advisory. The advisory, dated 12/13/04, limits largemouth bass consumption to no more than two meals per month. The affected stretch extends from the Route 628 bridge and continues downstream approximately 40 miles to Melrose Landing at Route 602.

- Fish Consumption Use Impairment (PCBs)

Segments of the Mattaponi River, beginning approximately 36 miles downstream of the outfall locations, are listed with a fish consumption use impairment due to PCBs in fish tissue. The fish consumption use is categorized as impaired due to a Virginia Department of Health, Division of Health Hazards Control, PCB fish consumption advisory. The advisory, dated 10/07/09, limits white perch and gizzard shad consumption to no more than two meals per month. The affected stretch extends from the Route 628 bridge and continues downstream approximately 40 miles to Melrose Landing at Route 602.

The following Total Maximum Daily Load (TMDL) schedules have been established.

- Recreation Use – 2020
- Fish Consumption Use (Mercury) – 2018
- Fish Consumption Use (PCBs) – 2022

The complete planning statement is located within the permit reissuance file.

b) Receiving Stream Water Quality Criteria

Part IX of 9VAC25-260(360-550) designates classes and special standards applicable to defined Virginia river basins and sections. The receiving stream, an unnamed tributary to the Mattaponi River, is located within Section 3 of the York River Basin, and classified as a Class III water.

At all times, Class III waters must achieve a dissolved oxygen (D.O.) of 4.0 mg/L or greater, a daily average D.O. of 5.0 mg/L or greater, a temperature that does not exceed 32°C, and maintain a pH of 6.0 - 9.0 standard units (S.U.).

Attachment 5 details other water quality criteria applicable to the receiving stream.

Ammonia:

The 7Q10 and 1Q10 of the receiving stream are 0.0 MGD. In cases such as this, effluent pH and temperature data may be used to establish the ammonia water quality standard. The 90th percentile value of reported effluent pH values was determined to be 7.4 S.U. Because the facility is not required to monitor temperature, a default value of 25°C was used. The ammonia water quality standards calculations are shown in Attachment 5.

Although the discharge is industrial in nature, ammonia is a parameter of concern as the fire retardant chemicals utilized by the facility are ammonia based. As such, there is reasonable potential to exceed the ammonia criteria. Because the discharge is comprised solely of storm water, it is staff's best professional judgment that monitoring endpoints be developed for ammonia. Please see Section 17.f of the Fact Sheet for further discussion on storm water outfall methodology.

Metals Criteria:

The 7Q10 of the receiving stream is zero and no ambient data is available. As such, effluent data for hardness can be used to determine the metals criteria. The hardness-dependent metals criteria in Attachment 5 are based on an average effluent value of 97 mg/L.

c) Receiving Stream Special Standards

The State Water Control Board's Water Quality Standards, River Basin Section Tables (9VAC25-260-360, 370 and 380) designates the river basins, sections, classes, and special standards for surface waters of the Commonwealth of Virginia. The receiving stream, an unnamed tributary to the Mattaponi River, is located within Section 3 of the York River Basin. This section has not been designated with any special standards.

d) Threatened or Endangered Species

The Virginia DGIF Fish and Wildlife Information System Database was searched on April 4, 2011, for records to determine if there are threatened or endangered species in the vicinity of the discharge. The following threatened or endangered species were identified within a 2 mile radius of the discharge: Upland Sandpiper, Loggerhead Shrike, Bachman's Sparrow, Bald Eagle, and Migrant Loggerhead Shrike. The limits proposed in this draft permit are protective of the Virginia Water Quality Standards and therefore, protect the threatened and endangered species found near the discharge.

The stream that the facility discharges to is within a reach identified as having a potential Anadromous Fish Use. It is staff's best professional judgment that the proposed limits are protective of this use.

**16. Antidegradation (9VAC25-260-30):**

All state surface waters are provided one of three levels of antidegradation protection. For Tier 1 or existing use protection, existing uses of the water body and the water quality to protect these uses must be maintained. Tier 2 water bodies have water quality that is better than the water quality standards. Significant lowering of the water quality of Tier 2 waters is not allowed without an evaluation of the economic and social impacts. Tier 3 water bodies are exceptional waters and are so designated by regulatory amendment. The antidegradation policy prohibits new or expanded discharges into exceptional waters.

The receiving stream has been classified as Tier 1 based on the stream having a 7Q10 and 1Q10 of zero. At times, the stream is comprised entirely of storm water runoff. It is staff's best professional judgment that such streams are Tier I since the limits are set to meet the WQS. The monitoring endpoints proposed have been established by determining wasteload allocations which will result in attaining and/or maintaining all water quality criteria which apply to the receiving stream, including narrative criteria. These wasteload allocations will provide for the protection and maintenance of all existing uses.

**17. Effluent Screening, Wasteload Allocation, and Effluent Limitation Development:**

To determine water quality-based effluent limitations for a discharge, the suitability of data must first be determined. Data is suitable for analysis if one or more representative data points is equal to or above the quantification level ("QL") and the data represent the exact pollutant being evaluated.

Next, the appropriate Water Quality Standards (WQS) are determined for the pollutants in the effluent. Then, the Wasteload Allocations (WLA) are calculated. In this case since the critical flows 7Q10 and 1Q10 have been determined to be zero, the WLA's are equal to the WQS. The WLA values are then compared with available effluent data to determine the need for effluent limitations. Effluent limitations are needed if the 97th percentile of the daily effluent concentration values is greater than the acute wasteload allocation or if the 97th percentile of the four-day average effluent concentration values is greater than the chronic wasteload allocation. Effluent limitations are based on the most limiting WLA, the required sampling frequency, and statistical characteristics of the effluent data.

a) Effluent Screening:

Effluent data obtained from the Discharge Monitoring Reports (DMR) submissions and permit application has been reviewed and determined to be suitable for evaluation.

The following pollutants require a wasteload allocation analysis: Ammonia, Arsenic, Chromium, Copper, and Zinc.

b) Mixing Zones and Wasteload Allocations (WLAs):

Wasteload allocations (WLAs) are calculated for those parameters in the effluent with the reasonable potential to cause an exceedance of water quality criteria. The basic calculation for establishing a WLA is the steady state complete mix equation:

$$WLA = \frac{C_o [Q_e + (f)(Q_s)] - [(C_s)(f)(Q_s)]}{Q_e}$$

Where:

WLA	=	Wasteload allocation
C <sub>o</sub>	=	In-stream water quality criteria
Q <sub>e</sub>	=	Design flow
Q <sub>s</sub>	=	Critical receiving stream flow (1Q10 for acute aquatic life criteria; 7Q10 for chronic aquatic life criteria; harmonic mean for carcinogen-human health criteria; 30Q10 for ammonia criteria, and 30Q5 for non-carcinogen human health criteria)
f	=	Decimal fraction of critical flow
C <sub>s</sub>	=	Mean background concentration of parameter in the receiving stream.

The water segment receiving the discharge via the facility's four outfalls is considered to have a 7Q10 and 1Q10 of 0.0 MGD. As such, there is no mixing zone and the WLA is equal to the C<sub>o</sub>.

Storm water discharges are considered intermittent and infrequent and as such, the only concern would be acute water quality impacts. The duration of this discharge is not expected to occur for four or more consecutive days. Therefore, only the acute wasteload allocations (WLA<sub>a</sub>) need to be addressed. Water Quality Criteria for human health (and chronic toxicity to a lesser degree) are based upon long term, continuous exposure to pollutants from effluents, and storm water discharges are short term and intermittent. Therefore, it is believed that the human health and chronic criteria are not applicable to storm water discharges. If it is raining a sufficient amount to generate a discharge of storm water, it is assumed that the receiving stream flow will be greater than the critical flow due to storm water runoff within the stream's drainage area. In recognition of the dilution caused by the rainfall, the monitoring end points were calculated by multiplying the acute Water Quality Criteria by two (2) for effluent dominated streams.

Additionally, the two times factor is derived from acute criteria being defined as one half of the final acute value (FAV) for a specific toxic pollutant. The term FAV is an estimate of the concentration of the toxicant corresponding to a cumulative probability of 0.05 for the acute toxicity values for all genera for which acceptable acute tests have been conducted with the toxicant. These criteria represent maximum pollutant concentration values, which when exceeded, could cause acute effects on aquatic life in a short time period. These criteria are applied solely to identify those pollutants that should be given special emphasis during development of the Storm Water Pollution Prevention Plan (SWPPP). Should storm water outfall data (pollutant specific) submitted by the permittee exceed the established monitoring end point, the permittee shall reexamine the effectiveness of the SWPPP and BMPs in use and modify as necessary to address any deficiencies that caused the exceedances. Table 4 below shows the respective monitoring end points.



TABLE 4 – Monitoring End Points		
Parameter	Acute Criteria	Monitoring End Point 2 x Acute Criteria
Ammonia, as N	23 mg/L	46 mg/L
Arsenic	340 µg/L	680 µg/L
Chromium	16 µg/L	32 µg/L
Copper	13 µg/L	26 µg/L
Zinc	110 µg/L	220 µg/L

c) Effluent Limitations Toxic Pollutants, Outfall 001, Outfall 003, Outfall 004, Outfall 006 –

9VAC25-31-220.D. requires limits be imposed where a discharge has a reasonable potential to cause or contribute to an in-stream excursion of water quality criteria. Those parameters WLAs that are near effluent concentrations are evaluated for limits.

The VPDES Permit Regulation at 9VAC25-31-230.D. requires that monthly and weekly average limitations be imposed for continuous discharges from POTWs and monthly average and daily maximum limitations be imposed for all other continuous non-POTW discharges.

1) Ammonia as N:

Data analysis indicates the need for an average monthly Ammonia limit of 6.1 mg/L. VA-DEQ Guidance Memo 96-001 recommends that chemical water quality-based limits not be placed on storm water outfalls because the methodology for developing limits and the proper method of sampling is still a concern and under review by EPA. Therefore, in the interim, screening (i.e., decision) criteria have been established at 2 times the acute criteria. As a result, monitoring end-points were established for Ammonia with continued monitoring for this parameter. Please see Section 17.f of the Fact Sheet for further discussion on storm water outfall methodology.

Based on pH of 7.4 S.U. and a calculated Acute Criteria of 23 mg/L for Ammonia (Attachment 5), the 2x Acute Criteria Monitoring End Point for this reissuance is 46 mg/L. The monitoring frequency of once per six months (1/6M) shall be carried forward with this reissuance.

Should storm water data exceed monitoring end points, the permittee shall reexamine the effectiveness of the SWPPP and any best management practices (BMPs) in use.

2) Arsenic:

Data analysis indicates the need for an average monthly Arsenic limit of 340 µg/L. VA-DEQ Guidance Memo 96-001 recommends that chemical water quality-based limits not be placed on storm water outfalls because the methodology for developing limits and the proper method of sampling is still a concern and under review by EPA. Therefore, in the interim, screening (i.e., decision) criteria have been established at 2 times the acute criteria. As a result, monitoring end-points were established for Copper with continued monitoring for this parameter. Please see Section 17.f of the Fact Sheet for further discussion on storm water outfall methodology.

Based on a total hardness of 97 mg/L and a calculated Acute Criteria of 340 µg/L for Arsenic (Attachment 5), the 2x Acute Criteria Monitoring End Point for this reissuance is 680 µg/L. The monitoring frequency of once per six months (1/6M) shall be carried forward with this reissuance.

Should storm water data exceed monitoring end points, the permittee shall reexamine the effectiveness of the SWPPP and any best management practices (BMPs) in use.

## 3) Chromium:

Data analysis indicates the need for an average monthly Chromium limit of 16 µg/L. VA-DEQ Guidance Memo 96-001 recommends that chemical water quality-based limits not be placed on storm water outfalls because the methodology for developing limits and the proper method of sampling is still a concern and under review by EPA. Therefore, in the interim, screening (i.e., decision) criteria have been established at 2 times the acute criteria. As a result, monitoring end-points were established for Chromium with continued monitoring for this parameter. Please see Section 17.f of the Fact Sheet for further discussion on storm water outfall methodology.

Based on a total hardness of 97 mg/L and a calculated Acute Criteria of 16 ug/L for Chromium (Attachment 5), the 2x Acute Criteria Monitoring End Point for this reissuance is 32 ug/L. The monitoring frequency of once per six months (1/6M) shall be carried forward with this reissuance.

## 4) Copper:

Data analysis indicates the need for an average monthly Copper limit of 13 µg/L. VA-DEQ Guidance Memo 96-001 recommends that chemical water quality-based limits not be placed on storm water outfalls because the methodology for developing limits and the proper method of sampling is still a concern and under review by EPA. Therefore, in the interim, screening (i.e., decision) criteria have been established at 2 times the acute criteria. As a result, monitoring end-points were established for Copper with continued monitoring for this parameter. Please see Section 17.f of the Fact Sheet for further discussion on storm water outfall methodology.

Based on a total hardness of 97 mg/L and a calculated Acute Criteria of 13 ug/L for Copper (Attachment 5), the 2x Acute Criteria Monitoring End Point for this reissuance is 26 ug/L. The monitoring frequency of once per six months (1/6M) shall be carried forward with this reissuance.

d) Effluent Limitations Toxic Pollutants, Outfall 003 and Outfall 006 -

9VAC25-31-220.D. requires limits be imposed where a discharge has a reasonable potential to cause or contribute to an in-stream excursion of water quality criteria. Those parameters WLAs that are near effluent concentrations are evaluated for limits.

The VPDES Permit Regulation at 9VAC25-31-230.D. requires that monthly and weekly average limitations be imposed for continuous discharges from POTWs and monthly average and daily maximum limitations be imposed for all other continuous non-POTW discharges.

## 1) Zinc:

As a result of previous reissuances, Zinc is only being sampled at Outfall 003 and Outfall 006. Because Outfall 003 receives storm water runoff from the west side of the property and Outfall 006 receives storm water runoff from the east side of the property, it is staff's opinion that the existing monitoring for Zinc provides sufficient representative data to determine if there is any impact on storm water quality. As such, staff does not propose implementing Zinc monitoring at Outfall 001 and Outfall 004 with this reissuance.

Data analysis indicates the need for an average monthly Zinc limit of 110 µg/L. VA-DEQ Guidance Memo 96-001 recommends that chemical water quality-based limits not be placed on storm water outfalls because the methodology for developing limits and the proper method of sampling is still a concern and under review by EPA. Therefore, in the interim, screening (i.e., decision) criteria have been established at 2 times the acute criteria. As a result, monitoring end-points were established for Zinc with continued monitoring for this parameter. Please see Section 17.f of the Fact Sheet for further discussion on storm water outfall methodology.

Based on a total hardness of 97 mg/L and a calculated Acute Criteria of 110 ug/L for Zinc (Attachment 5), the 2x Acute Criteria Monitoring End Point for this reissuance is 220 ug/L. The monitoring frequency of once per six months (1/6M) shall be carried forward with this reissuance.

e) Effluent Limitations and Monitoring, Outfall 001, Outfall 003, Outfall 004, Outfall 006 – Conventional and Non-Conventional Pollutants

No changes to pH limitations are proposed. pH limitations are set at the water quality criteria.

f) Effluent Limitations, Outfall 001, Outfall 003, Outfall 004, and Outfall 006 – Storm Water Only Pollutants.

VA-DEQ Guidance Memo 96-001 recommends that chemical water quality-based limits not be placed on storm water outfalls at this time because the methodology for developing limits and the proper method of sampling is still a concern and under review/reevaluation by EPA. Exceptions would be where a VPDES permit for a storm water discharge has been issued that includes effluent limitations (backsliding must be considered before these limitations can be modified) and where there are reliable data, obtained using sound, scientifically defensible procedures, which provide the justification and defense for an effluent limitation. Therefore, in lieu of limitations, pollutants are assessed against screening criteria developed solely to identify those pollutants that should be given special emphasis during development and assessment of the Storm Water Pollution Prevention Plan (SWPPP).

Each screening criterion is established as the most stringent of either (1) two times the applicable pollutant's acute criterion, (2) the pollutants waste load allocation, on the basis of the discharge going to a large receiving stream and utilizing conservative assumptions (i.e., Tier 2) or, where applicable, (3) the pollutant's benchmark monitoring concentration as contained in DEQ's VPDES general permit for storm water associated with industrial activity. Any storm water outfall effluent data submitted by the permittee that contained pollutants above the established screening criteria triggered the need for monitoring of that specific pollutant in Part I.A of the permit for that outfall. The screening criteria are then utilized in the permit as a comparative value. Based on the above, comparative values were established for Ammonia, Arsenic, Chromium, Copper, and Zinc (Attachment 5).

The SWPPP required by the permit is designed to reduce pollutants in storm water runoff. Semi-annual monitoring for the pollutants noted in the table below is recommended. Pollutant specific monitoring results above the established comparative value will justify the need to reexamine the effectiveness of the SWPPP and any best management practices (BMPs) being utilized. The goal of the SWPPP is to reduce pollutants to the maximum extent practicable.

g) Effluent Limitations, Outfall 001, Outfall 003, Outfall 004, and Outfall 006 – Federal Effluent Guidelines.

40 CFR Part 429 establishes Federal Effluent Limitation Guidelines for the Timber Products Processing Point Source Category. This part applies to any timber products processing operation, and any plant producing insulation board with wood as the major raw material, which discharges or may discharge process wastewater pollutants to the waters of the United States, or which introduces or may introduce process wastewater pollutants in to a publicly owned treatment works. The term "process wastewater" specifically excludes material storage yard runoff (either raw material or processed wood storage).

Effluent limitations representing the degree of effluent reduction attainable by the application of best practicable control technology (BPT) currently available and best available technology economically achievable (BAT) require no discharge of process wastewater pollutants.

Based on a review of the sixteen subcategories listed within Part 429, none are applicable to the current operations at Hoover Treated Wood Products. However, the special condition stipulating no discharge of process wastewater pollutants shall be carried forward with this reissuance.

h) Effluent Limitations and Monitoring Summary.

The effluent limitations are presented in the following table. Limits were established for pH.

Sample Type and Frequency are in accordance with the recommendations in the VPDES Permit Manual.

**18. Antibalancing:**

All limits in this permit are at least as stringent as those previously established. Backsliding does not apply to this reissuance

**19a. Effluent Limitations/Monitoring Requirements: Outfall 001**

Maximum daily flow is 0.0674 MGD.

Effective Dates: During the period beginning with the permit's effective date and lasting until the expiration date.

PARAMETER	BASIS FOR LIMITS	DISCHARGE LIMITATIONS				MONITORING REQUIREMENTS	
		<u>Monthly Average</u>	<u>Daily Maximum</u>	<u>Minimum</u>	<u>Maximum</u>	<u>Frequency<sup>(c)</sup></u>	<u>Sample Type</u>
Flow (MGD)	NA	NL	NA	NA	NL	1/6M	Estimate
pH	2	NA	NA	6.0 S.U.	9.0 S.U.	1/6M	Grab
Total Suspended Solids (TSS)	1	NA	NA	NA	NL mg/L	1/6M	Grab
Chemical Oxygen Demand (COD)	1	NA	NA	NA	NL mg/L	1/6M	Grab
Oil and Grease (O&G)	2	NA	NA	NA	NL mg/L	1/6M	Grab
Ammonia, as Nitrogen <sup>(b)</sup>	2	NA	NA	NA	NL mg/L	1/6M	Grab
Total Nitrogen <sup>(a)</sup>	2	NA	NA	NA	NL mg/L	1/6M	Grab
Total Phosphorus	2	NA	NA	NA	NL mg/L	1/6M	Grab
Total Hardness (as CaCO <sub>3</sub> )	2	NA	NA	NA	NL mg/L	1/6M	Grab
Arsenic, Total Recoverable <sup>(b)</sup>	2	NA	NA	NA	NL µg/L	1/6M	Grab
Chromium, Total Recoverable <sup>(b)</sup>	2	NA	NA	NA	NL µg/L	1/6M	Grab
Copper, Total Recoverable <sup>(b)</sup>	2	NA	NA	NA	NL µg/L	1/6M	Grab

The basis for the limitations codes are:

MGD = Million gallons per day.

1/6M = Once every six months.

1. Best Professional Judgement

NA = Not applicable.

2. Water Quality Standards

NL = No limit; monitor and report.

S.U. = Standard units.

Estimate = Reported flow is to be based on the technical evaluation of the sources contributing to the discharge.

Grab = An individual sample collected over a period of time not to exceed 15-minutes.

a. Total Nitrogen equals the sum of TKN plus Nitrate+Nitrite.

b. See Part I.D.10 for storm water monitoring end points.

c. The semi-annual monitoring periods shall be January 1 - June 30 and July 1 - December 31. The DMR shall be submitted no later than the 10<sup>th</sup> day of the month following the monitoring period (July 10 and January 10, respectively).

**19b. Effluent Limitations/Monitoring Requirements: Outfall 003**

Maximum daily flow is 0.0726 MGD.

Effective Dates: During the period beginning with the permit's effective date and lasting until the expiration date.

PARAMETER	BASIS FOR LIMITS	DISCHARGE LIMITATIONS				MONITORING REQUIREMENTS	
		Monthly Average	Daily Maximum	Minimum	Maximum	Frequency <sup>(c)</sup>	Sample Type
Flow (MGD)	NA	NL	NA	NA	NL	1/6M	Estimate
pH	2	NA	NA	6.0 S.U.	9.0 S.U.	1/6M	Grab
Total Suspended Solids (TSS)	1	NA	NA	NA	NL mg/L	1/6M	Grab
Chemical Oxygen Demand (COD)	1	NA	NA	NA	NL mg/L	1/6M	Grab
Oil and Grease (O&G)	2	NA	NA	NA	NL mg/L	1/6M	Grab
Ammonia, as Nitrogen <sup>(b)</sup>	2	NA	NA	NA	NL mg/L	1/6M	Grab
Total Nitrogen <sup>(a)</sup>	2	NA	NA	NA	NL mg/L	1/6M	Grab
Total Phosphorus	2	NA	NA	NA	NL mg/L	1/6M	Grab
Total Hardness (as CaCO <sub>3</sub> )	2	NA	NA	NA	NL mg/L	1/6M	Grab
Arsenic, Total Recoverable <sup>(b)</sup>	2	NA	NA	NA	NL µg/L	1/6M	Grab
Chromium, Total Recoverable <sup>(b)</sup>	2	NA	NA	NA	NL µg/L	1/6M	Grab
Copper, Total Recoverable <sup>(b)</sup>	2	NA	NA	NA	NL µg/L	1/6M	Grab
Zinc, Total Recoverable <sup>(b)</sup>	2	NA	NA	NA	NL µg/L	1/6M	Grab

The basis for the limitations codes are:

MGD = Million gallons per day.

1/6M = Once every six months.

1. Best Professional Judgement

NA = Not applicable.

2. Water Quality Standards

NL = No limit; monitor and report.

S.U. = Standard units.

Estimate = Reported flow is to be based on the technical evaluation of the sources contributing to the discharge.

Grab = An individual sample collected over a period of time not to exceed 15-minutes.

a. Total Nitrogen equals the sum of TKN plus Nitrate+Nitrite.

b. See Part I.D.10 for storm water monitoring end points.

c. The semi-annual monitoring periods shall be January 1 - June 30 and July 1 - December 31. The DMR shall be submitted no later than the 10<sup>th</sup> day of the month following the monitoring period (July 10 and January 10, respectively).

**19c. Effluent Limitations/Monitoring Requirements: Outfall 004**

Maximum daily flow is 0.0459MGD.

Effective Dates: During the period beginning with the permit's effective date and lasting until the expiration date.

PARAMETER	BASIS FOR LIMITS	DISCHARGE LIMITATIONS				MONITORING REQUIREMENTS	
		Monthly Average	Daily Maximum	Minimum	Maximum	Frequency <sup>(c)</sup>	Sample Type
Flow (MGD)	NA	NL	NA	NA	NL	1/6M	Estimate
pH	2	NA	NA	6.0 S.U.	9.0 S.U.	1/6M	Grab
Total Suspended Solids (TSS)	1	NA	NA	NA	NL mg/L	1/6M	Grab
Chemical Oxygen Demand (COD)	1	NA	NA	NA	NL mg/L	1/6M	Grab
Oil and Grease (O&G)	2	NA	NA	NA	NL mg/L	1/6M	Grab
Ammonia, as Nitrogen <sup>(b)</sup>	2	NA	NA	NA	NL mg/L	1/6M	Grab
Total Nitrogen <sup>(a)</sup>	2	NA	NA	NA	NL mg/L	1/6M	Grab
Total Phosphorus	2	NA	NA	NA	NL mg/L	1/6M	Grab
Total Hardness (as CaCO <sub>3</sub> )	2	NA	NA	NA	NL mg/L	1/6M	Grab
Arsenic, Total Recoverable <sup>(b)</sup>	2	NA	NA	NA	NL µg/L	1/6M	Grab
Chromium, Total Recoverable <sup>(b)</sup>	2	NA	NA	NA	NL µg/L	1/6M	Grab
Copper, Total Recoverable <sup>(b)</sup>	2	NA	NA	NA	NL µg/L	1/6M	Grab

The basis for the limitations codes are:

MGD = Million gallons per day.

1/6M = Once every six months.

1. Best Professional Judgement

NA = Not applicable.

2. Water Quality Standards

NL = No limit; monitor and report.

S.U. = Standard units.

Estimate = Reported flow is to be based on the technical evaluation of the sources contributing to the discharge.

Grab = An individual sample collected over a period of time not to exceed 15-minutes.

a. Total Nitrogen equals the sum of TKN plus Nitrate+Nitrite.

b. See Part I.D.10 for storm water monitoring end points.

c. The semi-annual monitoring periods shall be January 1 - June 30 and July 1 - December 31. The DMR shall be submitted no later than the 10<sup>th</sup> day of the month following the monitoring period (July 10 and January 10, respectively).

**19d. Effluent Limitations/Monitoring Requirements: Outfall 006**

Maximum daily flow is 0.0637MGD.

Effective Dates: During the period beginning with the permit's effective date and lasting until the expiration date.

PARAMETER	BASIS FOR LIMITS	DISCHARGE LIMITATIONS				MONITORING REQUIREMENTS	
		Monthly Average	Daily Maximum	Minimum	Maximum	Frequency <sup>(c)</sup>	Sample Type
Flow (MGD)	NA	NL	NA	NA	NL	1/6M	Estimate
pH	2	NA	NA	6.0 S.U.	9.0 S.U.	1/6M	Grab
Total Suspended Solids (TSS)	1	NA	NA	NA	NL mg/L	1/6M	Grab
Chemical Oxygen Demand (COD)	1	NA	NA	NA	NL mg/L	1/6M	Grab
Oil and Grease (O&G)	2	NA	NA	NA	NL mg/L	1/6M	Grab
Ammonia, as Nitrogen <sup>(b)</sup>	2	NA	NA	NA	NL mg/L	1/6M	Grab
Total Nitrogen <sup>(a)</sup>	2	NA	NA	NA	NL mg/L	1/6M	Grab
Total Phosphorus	2	NA	NA	NA	NL mg/L	1/6M	Grab
Total Hardness (as CaCO <sub>3</sub> )	2	NA	NA	NA	NL mg/L	1/6M	Grab
Arsenic, Total Recoverable <sup>(b)</sup>	2	NA	NA	NA	NL µg/L	1/6M	Grab
Chromium, Total Recoverable <sup>(b)</sup>	2	NA	NA	NA	NL µg/L	1/6M	Grab
Copper, Total Recoverable <sup>(b)</sup>	2	NA	NA	NA	NL µg/L	1/6M	Grab
Zinc, Total Recoverable <sup>(b)</sup>	2	NA	NA	NA	NL µg/L	1/6M	Grab

The basis for the limitations codes are:

MGD = Million gallons per day.

1/6M = Once every six months.

1. Best Professional Judgement

NA = Not applicable.

2. Water Quality Standards

NL = No limit; monitor and report.

S.U. = Standard units.

Estimate = Reported flow is to be based on the technical evaluation of the sources contributing to the discharge.

Grab = An individual sample collected over a period of time not to exceed 15-minutes.

a. Total Nitrogen equals the sum of TKN plus Nitrate+Nitrite.

b. See Part I.D.10 for storm water monitoring end points.

c. The semi-annual monitoring periods shall be January 1 - June 30 and July 1 - December 31. The DMR shall be submitted no later than the 10<sup>th</sup> day of the month following the monitoring period (July 10 and January 10, respectively).

**19e. Monitoring Requirements: Groundwater Monitoring (Monitoring Wells 1, 3, 4, 9, 10, 11, 12, 13, and 14)**

Effective Dates: During the period beginning with the permit's effective date and lasting until the expiration date, groundwater shall be monitored by the permittee in accordance with the facility's groundwater monitoring plan and as specified below.

PARAMETER	GROUNDWATER MONITORING		MONITORING REQUIREMENTS	
	<u>Limitations</u>	<u>Units</u>	<u>Frequency*</u>	<u>Sample Type</u>
Static Water Level (mean sea level)	NL	Feet	Semi-Annual	Measurement
pH (S.U.)	NL	Standard Units	Semi-Annual	Grab
Conductivity	NL	µmho/cm	Semi-Annual	Grab
Total Dissolved Solids (TDS)	NL	mg/L	Semi-Annual	Grab
Total Organic Carbon (TOC)	NL	mg/L	Semi-Annual	Grab
Ammonia, as N	NL	mg/L	Semi-Annual	Grab

NL = No Limit: monitor and report.

Grab = An individual sample collected over a period of time not to exceed 15-minutes or time needed to collect proper sample amount.

Static Water Level = The static water level shall be measured prior to bailing the well water for sampling. At least three volumes of groundwater shall be withdrawn immediately prior to sampling each monitoring well.

\* The semi-annual monitoring periods shall be January 1 - June 30 and July 1 - December 31. The groundwater monitoring report shall be submitted no later than the 10<sup>th</sup> day of the month following the monitoring period (July 10 and January 10, respectively).



**20. Groundwater Monitoring:**Background

The initial permit issued to the facility in 1995 required the development of a Groundwater Monitoring Program. A Groundwater Monitoring Plan dated December 11, 1995, was received by this office. However, the received date is no longer legible on the document. A review of water compliance files from 1999 - 2002 reveals correspondence between DEQ and Hoover pertaining to the completeness of that Groundwater Monitoring Plan. In March 2001, the facility submitted a monitoring well installation plan for the addition of three additional wells at the site. By letter dated April 5, 2002, DEQ approved the monitoring well installation plan and conditionally approved the Groundwater Monitoring Plan. For purposes of this reissuance, the facility has an approved Groundwater Monitoring Plan as of April 5, 2002.

Overview

The facility currently monitors nine wells (1, 3, 4, 9, 10, 11, 12, 13, and 14) for the following parameters/constituents: pH, Ammonia, Conductivity, Total Dissolved Solids, and Total Organic Carbon on a quarterly basis. 9VAC25-280-10 et seq. became effective February 12, 2004. This regulation establishes statewide groundwater standards (9VAC25-280-40) as well as groundwater standards applicable by physiographic province (9VAC25-280-50) and groundwater criteria applicable by physiographic province (9VAC25-280-70). Table 5 below outlines groundwater standards and criteria applicable to Hoover Treated Wood Products. The groundwater standards and criteria below are based on the facility being within the Piedmont and Blue Ridge physiographic province.

TABLE 5 – Groundwater Standards / Criteria		
Parameter	Standard	Criteria
pH	5.5 – 8.5 S.U.	N/A
Ammonia	0.025 mg/L	N/A
Total Organic Carbon	N/A	10
Total Dissolved Solids	N/A	250

Data Evaluation and Recommendations

With this reissuance, Hoover requested that sampling requirements for monitoring wells 1, 4, 9, 10, and 13 be removed. Hoover stated that sampling data shows an improvement in ammonia and total organic carbon values which are at or near non-detectable limits. Additionally, Hoover has requested that sampling requirements for monitoring wells 3, 11, 12, and 14 be reduced from quarterly to semi-annually.

In support of the permit reissuance, DEQ – NRO remediation and groundwater staff reviewed the most recent groundwater monitoring reports and data collected at the facility to comply with RCRA Post-Closure Permit requirements. Based on this review, it is staff's recommendation that groundwater monitoring requirements for all monitoring wells remain in the reissued permit. The removal of monitoring wells 1, 4, 9, 10, and 13 from the schedule would result in the removal of all up and down gradient wells, thus not allowing for the monitoring of background concentrations or for the mitigation of contaminants of concern. However, the monitoring frequency for all monitoring wells shall be reduced from quarterly to semi-annual. It is staff's best professional judgement that reducing the frequency of monitoring will not impair the effectiveness of the monitoring plan. The memo from DEQ – NRO remediation and groundwater staff is found as Attachment 6.

Additionally, remediation and groundwater staff noted that in the past ammonia has exceeded the criteria standard per 9VAC25-280-70. The existing VPDES permit required the facility to submit a corrective action plan to address high ammonia levels no later than January 30, 2008. It was the recommendation of remediation and groundwater staff that continued monitoring take place for ammonia unless the corrective actions as required by the existing permit have not been implemented.

A review of compliance files indicates a corrective action plan was received on January 30, 2008. However, the plan required by the existing permit cannot be located within the VPDES files. In June 2001, a corrective action plan providing a remediation strategy for the reduction of dissolved constituents of interest in groundwater in Area A was submitted. Area A is located in the northeast portion of the facility and its closure was required under the Resource Conservation and Recovery Act (RCRA). In September 1999 Hoover submitted a closure report detailing the closure activities associated with Area A. In November 1999 DEQ provided Hoover with notice that DEQ was satisfied that Area A had been clean closed with respect to soil, but was not satisfied that the groundwater had not been demonstrated to be clean closed. The subsequent corrective action plan (2001) focused on the reduction in concentration of metals. The corrective action plan was approved on November 26, 2001, and specifically stated that it may be incorporated into any permitted corrective action program under Hazardous and Solid Waste Amendments (HSWA) or a post-closure permit. Based on discussions with the facility, the corrective action plan approved on November 26, 2001, was allowed to fulfill the permit requirement for a corrective action plan to address high ammonia levels. As such, no additional corrective action plan was submitted. Because ammonia levels have improved over the course of the last permit cycle and corrective action efforts continue under the waste program, it is staff's best professional judgement that the special condition requiring the development of a corrective action plan to address high ammonia levels be removed with this reissuance. Monitoring for ammonia at all monitoring wells shall continue as described above.

## **21. Toxics Management Program (TMP):**

The VPDES Permit Regulation at 9VAC25-31-210 requires monitoring and 9VAC25-31-220.I, requires limitations in the permit to provide for and assure compliance with all applicable requirements of the State Water Control Law and the Clean Water Act. A TMP is imposed for municipal facilities with a design rate >1.0 MGD, with an approved pretreatment program or required to develop a pretreatment program, or those determined by the Board based on effluent variability, compliance history, IWC, and receiving stream characteristics.

Hoover Treated Wood Products is an industrial discharger with an effluent that was considered potentially toxic. It has been staff's best professional judgement that the permittee conduct annual acute testing using *C. dubia* and *P. promelas* as the test species. As such, the facility is currently conducting annual acute toxicity testing using *C. dubia* and *P. promelas* at both Outfall 003 and Outfall 006.

With this reissuance, the facility requested TMP requirements be removed from the permit. In support of the permit reissuance, a review of TMP results from the past ten years for Outfalls 003 and 006 was completed. Results did not indicate any toxicity resulting from the storm water runoff. As such, it is staff's best professional judgement that TMP requirements be discontinued with this reissuance.

**22. Other Permit Requirements :**

- a) Part I.B. of the permit contains quantification levels and compliance reporting instructions.

9VAC25-31-190.L.4.c. requires an arithmetic mean for measurement averaging and 9VAC25-31-220.D. requires limits be imposed where a discharge has a reasonable potential to cause or contribute to an in-stream excursion of water quality criteria. Specific analytical methodologies for toxics are listed in this permit section as well as quantification levels (QLs) necessary to demonstrate compliance with applicable permit limitations or for use in future evaluations to determine if the pollutant has reasonable potential to cause or contribute to a violation. Required averaging methodologies are also specified.

- b) Permit Section Part I.C. details the requirements of a Storm Water Management Plan.

9VAC25-31-10 defines discharges of storm water from municipal treatment plants with design flow of 1.0 MGD or more, or plants with approved pretreatment programs, as discharges of storm water associated with industrial activity. 9VAC25-31-120 requires a permit for these discharges. The pollution Prevention Plan requirements are derived from the VPDES general permit for discharges of storm water associated with industrial activity, 9VAC25-151-10 et seq.

**23. Other Special Conditions :**

- a) O&M Manual Requirement. Required by Code of Virginia §62.1-44.19; VPDES Permit Regulation, 9VAC25-31-190.E. The permittee shall submit for approval a revised Operations and Maintenance (O&M) Manual or a statement confirming the accuracy and completeness of the current O&M Manual to the Department of Environmental Quality, Northern Regional Office (DEQ-NRO) by January 26, 2012. Future changes to the facility must be addressed by the submittal of a revised O&M Manual within 90 days of the changes. Non-compliance with the O&M Manual shall be deemed a violation of the permit.
- b) Water Quality Criteria Reopener. The VPDES Permit Regulation at 9VAC25-31-220 D. requires establishment of effluent limitations to ensure attainment/maintenance of receiving stream water quality criteria. Should effluent monitoring indicate the need for any water quality-based limitations, this permit may be modified or alternatively revoked and reissued to incorporate appropriate limitations.
- c) Notification Levels. The permittee shall notify the Department as soon as they know or have reason to believe:
- a. That any activity has occurred or will occur which would result in the discharge, on a routine or frequent basis, of any toxic pollutant which is not limited in this permit, if that discharge will exceed the highest of the following notification levels:
    - (1) One hundred micrograms per liter;
    - (2) Two hundred micrograms per liter for acrolein and acrylonitrile; five hundred micrograms per liter for 2,4-dinitrophenol and for 2-methyl-4,6-dinitrophenol; and one milligram per liter for antimony;
    - (3) Five times the maximum concentration value reported for that pollutant in the permit application; or
    - (4) The level established by the Board.
  - b. That any activity has occurred or will occur which would result in any discharge, on a nonroutine or infrequent basis, of a toxic pollutant which is not limited in this permit, if that discharge will exceed the highest of the following notification levels:
    - (1) Five hundred micrograms per liter;
    - (2) One milligram per liter for antimony;
    - (3) Ten times the maximum concentration value reported for that pollutant in the permit application; or
    - (4) The level established by the Board.
- d) Materials Handling/Storage. 9VAC25-31-50 A prohibits the discharge of any wastes into State waters unless authorized by permit. Code of Virginia §62.1-44.16 and §62.1-44.17 authorize the Board to regulate the discharge of industrial waste or other waste.

e) Groundwater Monitoring Plan.

The permittee shall continue sampling and reporting ground water monitoring in accordance with Part I.A. of the permit and the approved groundwater monitoring plan dated April 5, 2002. The purpose of this plan is to determine if the system integrity is being maintained and to indicate if activities at the site are resulting in violations of the Board's Ground Water Standards. The permittee shall also review the existing Groundwater Monitoring Plan and notify the DEQ Northern Regional Office, in writing, whether it is still accurate and complete by January 26, 2012. If the Groundwater Monitoring Plan is no longer accurate and complete, a revised Groundwater Monitoring Plan shall be submitted for approval to the DEQ Northern Regional Office by January 26, 2012. If a revised Ground Water Monitoring Plan has been developed for RCRA and/or post closure requirements, that revision may be submitted to fulfill this permit requirement. The approved plan is an enforceable part of the permit. Any changes to the plan must be submitted for approval to the DEQ Northern Regional Office.

If monitoring results indicate that any unit has contaminated the ground water, the permittee shall submit a corrective action plan within 60 days of being notified by the regional office. The plan shall set forth the steps to be taken by the permittee to ensure that the contamination source is eliminated or that the contaminant plume is contained on the permittee's property. In addition, based on the extent of contamination, a risk analysis may be required. Once approved, this plan and/or analysis shall be incorporated into the permit by reference and become an enforceable part of this permit.

- f) Process Wastewater Pollutants. There shall be no discharge of process wastewater pollutants. The term "process wastewater" specifically excludes material storage yard runoff (either raw material or processed wood storage).
- g) Chemical Treatment. The permittee shall notify the DEQ Northern Regional Office 90 days prior to use of any new wood treatment chemicals. Upon notification, the Regional Office will determine if this activity warrants a modification of the permit.
- h) Retention Time of Treated Lumber. Treated lumber shall remain on drip pads until all drippage has ceased.
- i) Facility Closure Plan. A facility closure plan shall be developed by the facility and incorporated in to the O&M Manual. The plan shall address the entire facility closure except those RCRA regulated units with the following specifics:
1. Temporary shutdown condition - how process water or wastewater will be handled during this period (short term duration of less than one year); and
  2. Final shutdown – closure of operation areas including, but not limited to, disposal of contaminated soils and groundwater, and disposal of all wastewater and process chemicals.
- The permittee shall be responsible for coordinating with the Waste Division any closure actions that are regulated under the "Virginia Hazardous Waste Management Regulations".

- j) Storm Water Monitoring. Storm water monitoring end points have been established with this permit reissuance for all parameters requiring a wasteload allocation analysis. The permittee shall conduct all storm water monitoring in accordance with Part I.A of the permit.

<u>Parameter</u>	<u>Monitoring End Point</u>
Ammonia	46 mg/L
Arsenic	680 µg/L
Chromium	32 µg/L
Copper	26 µg/L
Zinc	220 µg/L

Should the storm water monitoring results for a given parameter exceed the end point below, the permittee shall reexamine the effectiveness of the SWPPP and BMPs in use and within 30 days modify as necessary to address any deficiencies that caused the exceedances. Resampling for a parameter that exceeded a monitoring end point shall occur within 30 days of any SWPPP or BMP modification. Storm water monitoring data submitted by the permittee above an established monitoring end point does not constitute a violation of the permit.

Permit Section Part II. Part II of the permit contains standard conditions that appear in all VPDES Permits. In general, these standard conditions address the responsibilities of the permittee, reporting requirements, testing procedures and records retention.

#### **24. Changes to the Permit from the Previously Issued Permit:**

- a) Special Conditions:
1. The storm water reopener has been removed with this reissuance.
  2. The corrective action plan special condition has been removed with this reissuance.
  3. The BMP special condition was removed with this reissuance as the storm water monitoring and storm water pollution prevention plan requirements found in Part I.C are best management practice driven.
  4. A chemical treatment special condition has been added with this reissuance to provide consistency within all wood preserving permits.
  5. A retention time of treated lumber special condition has been added with this reissuance to provide consistency within all wood preserving permits.
  6. A facility closure plan special condition has been added with this reissuance to provide consistency within all wood preserving permits.
  7. A storm water monitoring special condition has been added with this reissuance.
- b) Monitoring and Effluent Limitations:
1. TMP requirements have been removed from the permit with this reissuance based on the compliance history of the facility.
  2. Groundwater monitoring requirements for monitoring wells 1, 3, 4, 9, 10, 11, 12, 13, and 14 have been reduced from quarterly to semi-annually with this reissuance.
  3. Storm water monitoring requirements have been updated to be consistent with the current VPDES General Permit for Storm Water Discharges Associated with Industrial Activity.
  4. Monitoring end point values have been established and included in the permit with this reissuance for Ammonia, Arsenic, Chromium, Copper, and Zinc.

**24. Variances/Alternate Limits or Conditions: None****25. Public Notice Information:**

First Public Notice Date: September 22, 2011

Second Public Notice Date: September 29, 2011

Public Notice Information is required by 9VAC25-31-280 B. All pertinent information is on file and may be inspected, and copied by contacting the: DEQ Northern Regional Office, 13901 Crown Court, Woodbridge, VA 22193, Telephone No. (703) 583-3853, susan.mackert@deq.virginia.gov. See Attachment 7 for a copy of the public notice document.

Persons may comment in writing or by email to the DEQ on the proposed permit action, and may request a public hearing, during the comment period. Comments shall include the name, address, and telephone number of the writer and of all persons represented by the commenter/requester, and shall contain a complete, concise statement of the factual basis for comments. Only those comments received within this period will be considered. The DEQ may decide to hold a public hearing, including another comment period, if public response is significant and there are substantial, disputed issues relevant to the permit. Requests for public hearings shall state 1) the reason why a hearing is requested; 2) a brief, informal statement regarding the nature and extent of the interest of the requester or of those represented by the requester, including how and to what extent such interest would be directly and adversely affected by the permit; and 3) specific references, where possible, to terms and conditions of the permit with suggested revisions. Following the comment period, the Board will make a determination regarding the proposed permit action. This determination will become effective, unless the DEQ grants a public hearing. Due notice of any public hearing will be given. The public may request an electronic copy of the draft permit and fact sheet or review the draft permit and application at the DEQ Northern Regional Office by appointment.

**26. 303 (d) Listed Stream Segments and Total Max. Daily Loads (TMDL):**

The receiving streams, two different unnamed tributaries (swamps) to the Mattaponi River, are not listed on the current 303(d) list. However, the 2010 Virginia Water Quality Assessment 305(b)/303(d) Integrated Report (IR) gives an impaired classification for downstream segments of the Mattaponi River.

A segment of the Mattaponi River, approximately 4.8 miles downstream of the outfall locations, is listed with a recreation use impairment due to exceedances of the *E. coli* criterion. As such, this stream segment has been assessed as not supporting of the recreation use goal for the 2010 water quality assessment

The fish consumption use is categorized as impaired due to Virginia Department of Health, Division of Health Hazards Control, PCB and mercury fish consumption advisories. The affected stretch for these advisories extends from the Route 628 bridge and continues downstream approximately 40 miles to Melrose Landing at Route 602.

The following Total Maximum Daily Load (TMDL) schedules have been established.

- Recreation Use – 2020
- Fish Consumption Use (Mercury) – 2018
- Fish Consumption Use (PCBs) – 2022

The facility is not likely contributing to the downstream impairments as neither Mercury nor PCBs have been used at the site.

TMDL Reopener: This special condition is to allow the permit to be reopened if necessary to bring it in compliance with any applicable TMDL that may be developed and approved for the receiving stream.

**27. Additional Comments:**

Previous Board Action(s): None

Staff Comments: Groundwater monitoring for Arsenic, Chromium, and Copper was removed from the permit during the previous reissuance as these particular metals were being monitored under the facility's RCRA requirements. The facility is currently working with Central Office staff to develop a site wide groundwater monitoring program. It should be noted that monitoring for Arsenic, Chromium, and Copper shall continued at the regulated unit as part of the site wide groundwater monitoring program. As such, it is staff's best professional judgement that groundwater monitoring for metals not be reinstated in the VPDES permit.

Public Comment: No comments were received.

EPA Checklist: The checklist can be found in Attachment 8.

## Fact Sheet Attachments – Table of Contents

### Hoover Treated Wood Products VA0088714

2011 Reissuance

Attachment 1	NPDES Permit Rating Worksheet
Attachment 2	Facility Flow Diagram
Attachment 3	Topographic Map
Attachment 4	Site Visit Memorandum
Attachment 5	Wasteload Allocation Analysis – Limit Derivation
Attachment 6	Groundwater Data Review Memorandum
Attachment 7	Public Notice
Attachment 8	EPA Checklist



## NPDES PERMIT RATING WORK SHEET

VPDES NO. : VA0088714

<input checked="" type="checkbox"/>	Regular Addition
<input type="checkbox"/>	Discretionary Addition
<input type="checkbox"/>	Score change, but no status Change
<input type="checkbox"/>	Deletion

Facility Name: Hoover Treated Wood Products

City / County: Caroline County

Receiving Water: UT to Mattaponi River

Waterbody ID: VAN-F17R

Is this facility a steam electric power plant (sic =4911) with one or more of the following characteristics?

1. Power output 500 MW or greater (not using a cooling pond/lake)

2. A nuclear power Plant

3. Cooling water discharge greater than 25% of the receiving stream's 7Q10 flow rate

Is this permit for a municipal separate storm sewer serving a population greater than 100,000?

☐ YES; score is 700 (stop here)☒ NO; (continue)☐ Yes; score is 600 (stop here) ☒ NO; (continue)**FACTOR 1: Toxic Pollutant Potential**

PCS SIC Code: \_\_\_\_\_ Primary Sic Code: 2491 Other Sic Codes: 2499

Industrial Subcategory Code: 000 (Code 000 if no subcategory)

Determine the Toxicity potential from Appendix A. Be sure to use the TOTAL toxicity potential column and check one)

Toxicity Group	Code	Points	Toxicity Group	Code	Points	Toxicity Group	Code	Points
<input checked="" type="checkbox"/> No process waste streams	0	0	<input type="checkbox"/> 3.	3	15	<input type="checkbox"/> 7.	7	35
<input type="checkbox"/> 1.	1	5	<input type="checkbox"/> 4.	4	20	<input type="checkbox"/> 8.	8	40
<input type="checkbox"/> 2.	2	10	<input type="checkbox"/> 5.	5	25	<input type="checkbox"/> 9.	9	45
			<input type="checkbox"/> 6.	6	30	<input type="checkbox"/> 10.	10	50

Code Number Checked: 0

**Total Points Factor 1:** 0**FACTOR 2: Flow/Stream Flow Volume** (Complete either Section A or Section B; check only one)

## Section A – Wastewater Flow Only considered

Wastewater Type (see Instructions)	Code	Points
Type I: Flow < 5 MGD	<input type="checkbox"/> 11	0
Flow 5 to 10 MGD	<input type="checkbox"/> 12	10
Flow > 10 to 50 MGD	<input type="checkbox"/> 13	20
Flow > 50 MGD	<input type="checkbox"/> 14	30
Type II: Flow < 1 MGD	<input type="checkbox"/> 21	10
Flow 1 to 5 MGD	<input type="checkbox"/> 22	20
Flow > 5 to 10 MGD	<input type="checkbox"/> 23	30
Flow > 10 MGD	<input type="checkbox"/> 24	50
Type III: Flow < 1 MGD	<input checked="" type="checkbox"/> 31	0
Flow 1 to 5 MGD	<input type="checkbox"/> 32	10
Flow > 5 to 10 MGD	<input type="checkbox"/> 33	20
Flow > 10 MGD	<input type="checkbox"/> 34	30

## Section B – Wastewater and Stream Flow Considered

Wastewater Type (see Instructions)	Percent of Instream Wastewater Concentration at Receiving Stream Low Flow	Code	Points
Type I/III:	< 10 %	<input type="checkbox"/> 41	0
	10 % to < 50 %	<input type="checkbox"/> 42	10
	> 50%	<input type="checkbox"/> 43	20
Type II:	< 10 %	<input type="checkbox"/> 51	0
	10 % to < 50 %	<input type="checkbox"/> 52	20
	> 50 %	<input type="checkbox"/> 53	30

Code Checked from Section A or B: 31

**Total Points Factor 2:** 0

## NPDES PERMIT RATING WORK SHEET

**FACTOR 3: Conventional Pollutants**

(only when limited by the permit)

A. Oxygen Demanding Pollutants: (check one) ☐ BOD ☐ COD ☐ Other: \_\_\_\_\_

Permit Limits: (check one)

		Code	Points
<input type="checkbox"/>	< 100 lbs/day	1	0
<input type="checkbox"/>	100 to 1000 lbs/day	2	5
<input type="checkbox"/>	> 1000 to 3000 lbs/day	3	15
<input type="checkbox"/>	> 3000 lbs/day	4	20

Code Number Checked: NA**Points Scored:** 0

B. Total Suspended Solids (TSS)

Permit Limits: (check one)

		Code	Points
<input type="checkbox"/>	< 100 lbs/day	1	0
<input type="checkbox"/>	100 to 1000 lbs/day	2	5
<input type="checkbox"/>	> 1000 to 5000 lbs/day	3	15
<input type="checkbox"/>	> 5000 lbs/day	4	20

Code Number Checked: NA**Points Scored:** 0C. Nitrogen Pollutants: (check one) ☐ Ammonia ☐ Other: \_\_\_\_\_

Permit Limits: (check one)

	<i>Nitrogen Equivalent</i>	Code	Points
<input type="checkbox"/>	< 300 lbs/day	1	0
<input type="checkbox"/>	300 to 1000 lbs/day	2	5
<input type="checkbox"/>	> 1000 to 3000 lbs/day	3	15
<input type="checkbox"/>	> 3000 lbs/day	4	20

Code Number Checked: NA**Points Scored:** 0**Total Points Factor 3:** 0**FACTOR 4: Public Health Impact**

Is there a public drinking water supply located within 50 miles downstream of the effluent discharge (this include any body of water to which the receiving water is a tributary)? A public drinking water supply may include infiltration galleries, or other methods of conveyance that ultimately get water from the above reference supply.

☐ YES; (If yes, check toxicity potential number below)☒ NO; (If no, go to Factor 5)

Determine the *Human Health* potential from Appendix A. Use the same SIC doe and subcategory reference as in Factor 1. (Be sure to use the *Human Health* toxicity group column – check one below)

Toxicity Group	Code	Points	Toxicity Group	Code	Points	Toxicity Group	Code	Points
<input type="checkbox"/> No process waste streams	0	0	<input type="checkbox"/> 3.	3	0	<input type="checkbox"/> 7.	7	15
<input type="checkbox"/> 1.	1	0	<input type="checkbox"/> 4.	4	0	<input type="checkbox"/> 8.	8	20
<input type="checkbox"/> 2.	2	0	<input type="checkbox"/> 5.	5	5	<input type="checkbox"/> 9.	9	25
			<input type="checkbox"/> 6.	6	10	<input type="checkbox"/> 10.	10	30

Code Number Checked: NA**Total Points Factor 4:** 0

## NPDES PERMIT RATING WORK SHEET

**FACTOR 5: Water Quality Factors**

- A. *Is (or will) one or more of the effluent discharge limits based on water quality factors of the receiving stream (rather than technology-base federal effluent guidelines, or technology-base state effluent guidelines), or has a wasteload allocation been to the discharge*

	Code	Points
<input type="checkbox"/> YES	1	10
<input checked="" type="checkbox"/> NO	2	0

- B. *Is the receiving water in compliance with applicable water quality standards for pollutants that are water quality limited in the permit?*

	Code	Points
<input checked="" type="checkbox"/> YES	1	0
<input type="checkbox"/> NO	2	5

- C. *Does the effluent discharged from this facility exhibit the reasonable potential to violate water quality standards due to whole effluent toxicity?*

	Code	Points
<input type="checkbox"/> YES	1	10
<input checked="" type="checkbox"/> NO	2	0

Code Number Checked: A 2 B 1 C 2  
**Points Factor 5:** A 0 + B 0 + C 0 = 0

**FACTOR 6: Proximity to Near Coastal Waters**

- A. Base Score: Enter flow code here (from factor 2) 31

Check appropriate facility HPRI code (from PCS):

HPRI#	Code	HPRI Score
<input type="checkbox"/> 1	1	20
<input type="checkbox"/> 2	2	0
<input type="checkbox"/> 3	3	30
<input checked="" type="checkbox"/> 4	4	0
<input type="checkbox"/> 5	5	20

HPRI code checked : 4

Base Score (HPRI Score): 0 X (Multiplication Factor) 0 = 0

Enter the multiplication factor that corresponds to the flow code: 0

Flow Code	Multiplication Factor
11, 31, or 41	0.00
12, 32, or 42	0.05
13, 33, or 43	0.10
14 or 34	0.15
21 or 51	0.10
22 or 52	0.30
23 or 53	0.60
24	1.00

- B. Additional Points – NEP Program

For a facility that has an HPRI code of 3, does the facility discharge to one of the estuaries enrolled in the National Estuary Protection (NEP) program (see instructions) or the Chesapeake Bay?

Code	Points
<input type="checkbox"/> 1	10
<input checked="" type="checkbox"/> 2	0

- C. Additional Points – Great Lakes Area of Concern

For a facility that has an HPRI code of 5, does the facility discharge any of the pollutants of concern into one of the Great Lakes' 31 area's of concern (see instructions)?

Code	Points
<input type="checkbox"/> 1	10
<input checked="" type="checkbox"/> 2	0

Code Number Checked: A 4 B 2 C 2  
**Points Factor 6:** A 0 + B 0 + C 0 = 0

## NPDES PERMIT RATING WORK SHEET

## SCORE SUMMARY

<u>Factor</u>	<u>Description</u>	<u>Total Points</u>
1	Toxic Pollutant Potential	0
2	Flows / Streamflow Volume	0
3	Conventional Pollutants	0
4	Public Health Impacts	0
5	Water Quality Factors	0
6	Proximity to Near Coastal Waters	0
TOTAL (Factors 1 through 6)		<b>0</b>

S1. Is the total score equal to or greater than 80 ☐ YES; (Facility is a Major) ☒ NO

S2. If the answer to the above questions is no, would you like this facility to be discretionary major?

☒ NO

☐ YES; (Add 500 points to the above score and provide reason below)

Reason:

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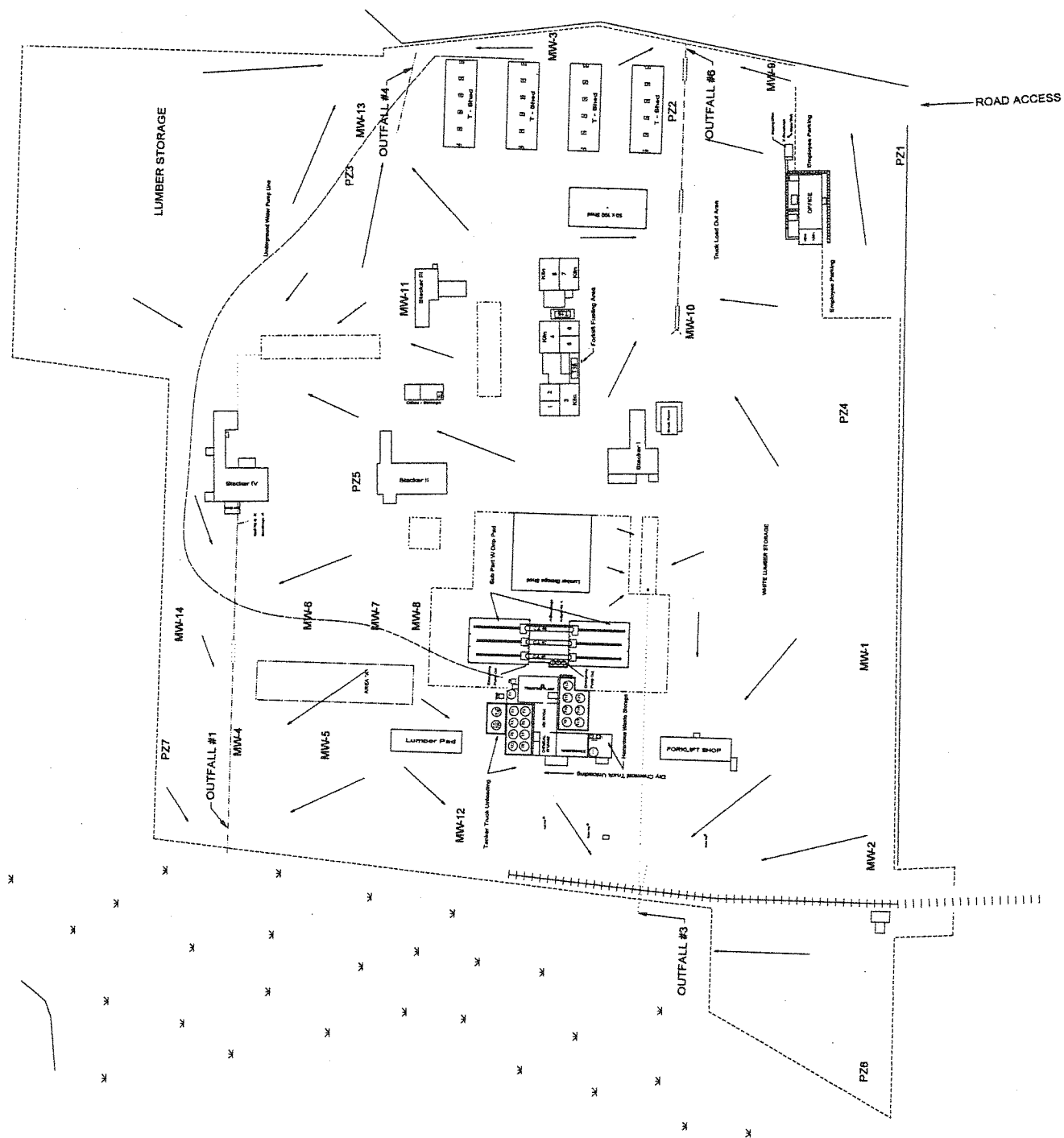
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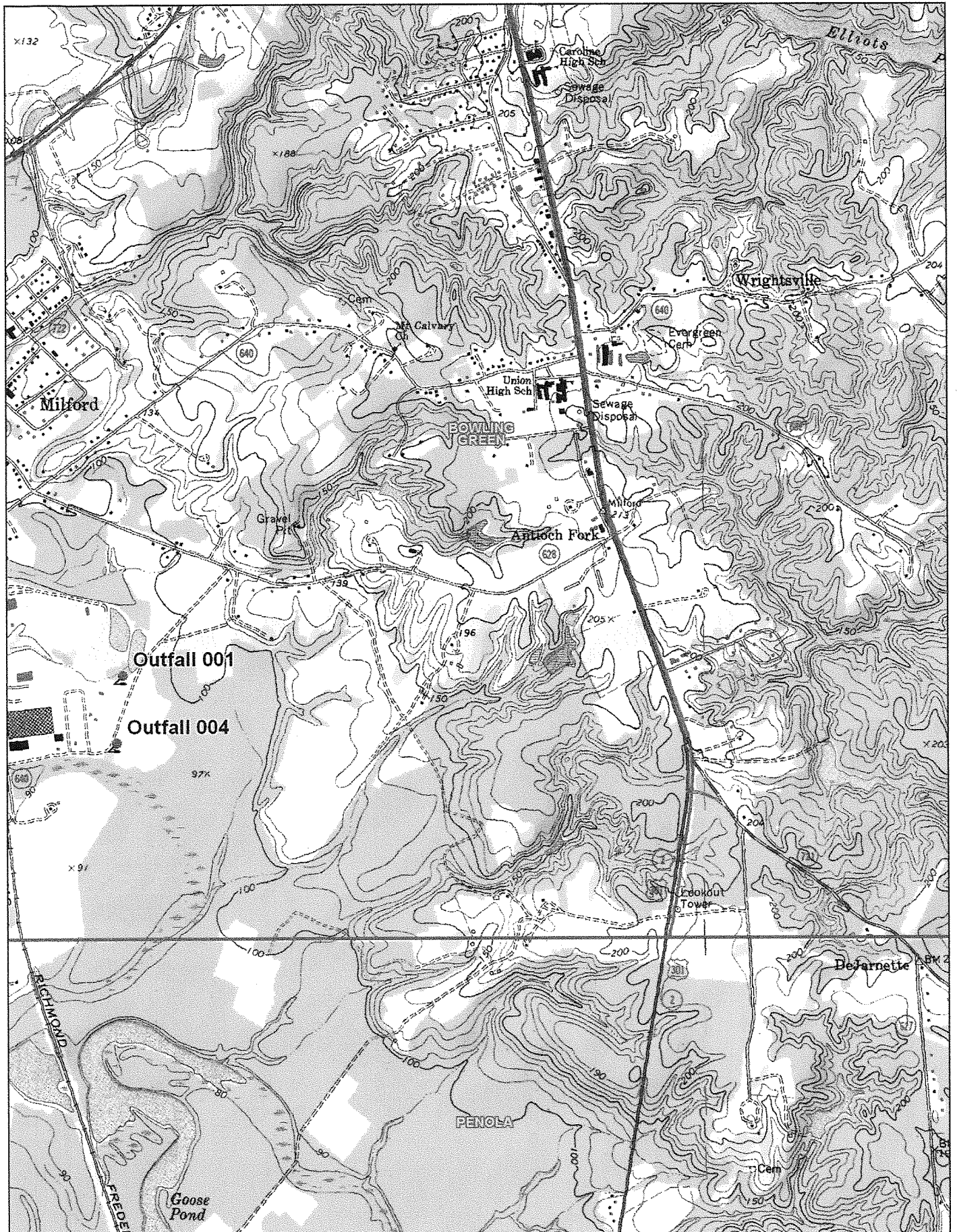


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NEW SCORE : 0  
 OLD SCORE : 10

Permit Reviewer's Name : Susan Mackert  
 Phone Number: (703) 583-3853  
 Date: August 1, 2011

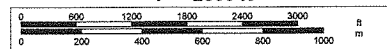




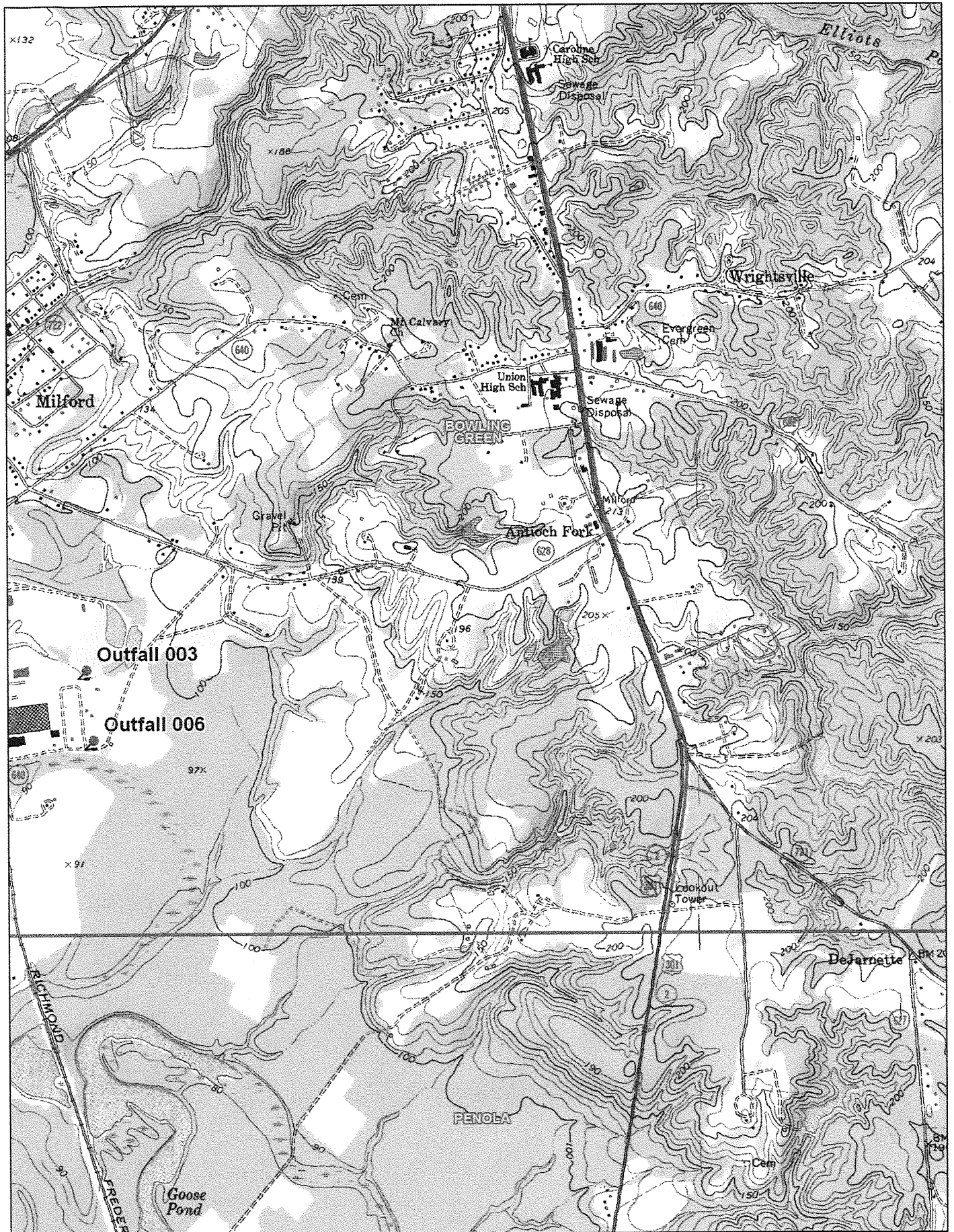
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Scale 1 : 25,000  
1" = 2080 ft

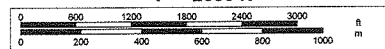






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Scale 1 : 25,000  
1" = 2080 ft



# MEMORANDUM

## VIRGINIA DEPARTMENT OF ENVIRONMENTAL QUALITY

### NORTHERN REGIONAL OFFICE

13901 Crown Court

Woodbridge, VA 22193

SUBJECT: Reissuance Site Visit  
Hoover Treated Wood Products (VA0088714)

TO: Permit Reissuance File

FROM: Susan Mackert

DATE: September 12, 2011

A site visit was performed on August 30, 2011, to verify information provided in the facility's permit reapplication package. Information provided in the reapplication package was found representative of actual site conditions.

Hoover Treated Wood Products receives lumber, plywood, and timber via truck with some product received by rail. These purchased products are then pressure treated with waterborne fire retardant chemicals and waterborne preservative chemicals (Chromated Copper Arsenate (CCA), Alkaline Copper Quaternary (ACQ), Exterior Fire Retardant (Fire-X), and Pyro-Guard Interior Fire Retardant).

The pressure treatment area is located undercover and within secondary containment (photo 1). Pressure treatment takes place within one of three available cylinders. Storm water that collects within the containment area is collected and used as process water. This area utilizes a closed loop system. Once products have been pressure treated the product is re-dried utilizing diesel fired steam boiler dry kilns (photo 2). All finished inventory of kiln dried after treatment wood is protected from the rain by the application of plastic packaging (photos 3 - 4). Finished inventory is stored on site prior to shipping.

The only discharge from the facility is as a result of storm water runoff. Storm water runoff from the site discharges via four outfalls (001, 003, 004, and 006).

#### Outfall 001 and Outfall 003

Outfall 001 (photo 5) and Outfall 003 (photo 6) are located on the western border of the property. Storm water drains to the north from the production, stacker, and white wood storage areas (photos 3 and 7). Discharge is to an unnamed tributary of the Mattaponi River.

#### Outfall 004 and Outfall 006

Outfall 004 (photo 8) and Outfall 006 (photo 9) are located on the eastern border of the property. Storm water drains to the south from the treated lumber storage area (photos 4 and 10). Discharge is to an unnamed tributary of the Mattaponi River.

#### Area A

A portion of the facility identified as Area A is currently under a corrective action plan providing a remediation strategy for the reduction of dissolved constituents of interest in groundwater. Area A is located in the northeast portion of the facility (photo 11) and its closure was required under the Resource Conservation and Recovery Act (RCRA). In September 1999 Hoover submitted a closure report detailing the closure activities associated with Area A. In November 1999 DEQ provided Hoover with notice that DEQ was satisfied that Area A had been clean closed with respect to soil, but was not satisfied that the groundwater had not been demonstrated to be clean closed.





Photo 1. Pressure treatment area.



Photo 2. Dry kilns.



Photo 3. Wrapped finished product and drainage area to Outfall 001 shown in Photo 5.



Photo 4. Wrapped finished product and drainage area to Outfall 006 shown in Photo 9.



Photo 5. Outfall 001



Photo 6. Outfall 003.





Photo 7. Drainage area to Outfall 003.



Photo 8. Outfall 004.



Photo 9. Outfall 006.



Photo 10. Drainage area to Outfall 004.



Photo 11. Area A.

# FRESHWATER WATER QUALITY CRITERIA / WASTELOAD ALLOCATION ANALYSIS

Facility Name: Hoover Treated Wood Products

Permit No.: VA0088714

Receiving Stream: UT to Mattaponi River

Version: OWP Guidance Memo 00-2011 (8/24/00)

Stream Information		Stream Flows		Mixing Information		Effluent Information	
Mean Hardness (as CaCO <sub>3</sub> ) =	mg/L	1Q10 (Annual) =	0 MGD	Annual - 1Q10 Mix =	100 %	Mean Hardness (as CaCO <sub>3</sub> ) =	97 mg/L
90% Temperature (Annual) =	deg C	7Q10 (Annual) =	0 MGD	- 7Q10 Mix =	100 %	90% Temp (Annual) =	25 deg C
90% Temperature (Wet season) =	deg C	3Q10 (Annual) =	0 MGD	- 3Q10 Mix =	100 %	90% Temp (Wet season) =	deg C
90% Maximum pH =	SU	1Q10 (Wet season) =	0 MGD	Wet Season - 1Q10 Mix =	100 %	90% Maximum pH =	7.4 SU
10% Maximum pH =	SU	3Q10 (Wet season) =	0 MGD	- 3Q10 Mix =	100 %	10% Maximum pH =	6.3 SU
Tier Designation (1 or 2) =	1	3Q05 =	0 MGD			Discharge Flow =	0.25 MGD
Public Water Supply (PWS) Y/N? =	n	Harmonic Mean =	0 MGD				
Trout Present Y/N? =	n						
Early Life Stages Present Y/N? =	y						

Parameter (ug/l unless noted)	Background Conc.	Water Quality Criteria			Wasteload Allocations			Antidegradation Baseline			Antidegradation Allocations			Most Limiting Allocations		
		Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)
Acenaphthene	0	--	--	na	9.9E+02	--	--	na	9.9E+02	--	--	--	--	--	--	9.9E+02
Acrolein	0	--	--	na	9.3E+00	--	--	na	9.3E+00	--	--	--	--	--	--	9.3E+00
Acrylonitrile <sup>c</sup>	0	--	--	na	2.5E+00	--	--	na	2.5E+00	--	--	--	--	--	--	2.5E+00
Aldrin <sup>c</sup>	0	3.0E+00	--	na	5.0E-04	3.0E+00	--	na	5.0E-04	--	--	--	--	3.0E+00	--	5.0E-04
Ammonia-N (mg/l)	0	2.30E+01	2.41E+00	na	--	2.3E+01	2.4E+00	na	--	--	--	--	--	2.3E+01	2.4E+00	na
Ammonia-N (mg/l)	0	2.30E+01	4.73E+00	na	--	2.3E+01	4.7E+00	na	--	--	--	--	--	2.3E+01	4.7E+00	na
(High Flow)	0	--	--	na	4.0E-04	--	--	na	4.0E-04	--	--	--	--	--	--	4.0E-04
Anthracene	0	--	--	na	6.4E+02	--	--	na	6.4E+02	--	--	--	--	--	--	6.4E+02
Antimony	0	3.4E+02	1.5E+02	na	--	3.4E+02	1.5E+02	na	--	--	--	--	--	3.4E+02	1.5E+02	na
Arsenic	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	na
Barium	0	--	--	na	5.1E+02	--	--	na	5.1E+02	--	--	--	--	--	--	5.1E+02
Benzene <sup>c</sup>	0	--	--	na	2.0E-03	--	--	na	2.0E-03	--	--	--	--	--	--	2.0E-03
Benzidine <sup>c</sup>	0	--	--	na	1.8E-01	--	--	na	1.8E-01	--	--	--	--	--	--	1.8E-01
Benzo (a) anthracene <sup>c</sup>	0	--	--	na	1.8E-01	--	--	na	1.8E-01	--	--	--	--	--	--	1.8E-01
Benzo (b) fluoranthene <sup>c</sup>	0	--	--	na	1.8E-01	--	--	na	1.8E-01	--	--	--	--	--	--	1.8E-01
Benzo (k) fluoranthene <sup>c</sup>	0	--	--	na	1.8E-01	--	--	na	1.8E-01	--	--	--	--	--	--	1.8E-01
Benzo (a) pyrene <sup>c</sup>	0	--	--	na	1.8E-01	--	--	na	1.8E-01	--	--	--	--	--	--	1.8E-01
Bis(2-Chloroethyl) Ether <sup>c</sup>	0	--	--	na	5.3E+00	--	--	na	5.3E+00	--	--	--	--	--	--	5.3E+00
Bis(2-Chloroisopropyl) Ether	0	--	--	na	6.5E+04	--	--	na	6.5E+04	--	--	--	--	--	--	6.5E+04
Bis(2-Ethylhexyl) Phthalate <sup>c</sup>	0	--	--	na	2.2E+01	--	--	na	2.2E+01	--	--	--	--	--	--	2.2E+01
Bromofom <sup>c</sup>	0	--	--	na	1.4E+03	--	--	na	1.4E+03	--	--	--	--	--	--	1.4E+03
Butybenzylphthalate	0	--	--	na	1.9E+03	--	--	na	1.9E+03	--	--	--	--	3.8E+00	1.1E+00	na
Cadmium	0	3.8E+00	1.1E+00	na	--	3.8E+00	1.1E+00	na	--	--	--	--	--	--	--	na
Carbon Tetrachloride <sup>c</sup>	0	--	--	na	1.6E+01	--	--	na	1.6E+01	--	--	--	--	--	--	1.6E+01
Chlordane <sup>c</sup>	0	2.4E+00	4.3E-03	na	8.1E-03	2.4E+00	4.3E-03	na	8.1E-03	--	--	--	--	2.4E+00	4.3E-03	na
Chloride	0	8.6E+05	2.3E+05	na	--	8.6E+05	2.3E+05	na	--	--	--	--	--	8.6E+05	2.3E+05	na
TRC	0	1.9E+01	1.1E+01	na	--	1.9E+01	1.1E+01	na	--	--	--	--	--	1.9E+01	1.1E+01	na
Chlorobenzene	0	--	--	na	1.6E+03	--	--	na	1.6E+03	--	--	--	--	--	--	1.6E+03

Parameter (ug/l unless noted)	Background Conc.	Water Quality Criteria			Wasteload Allocations			Antidegradation Baseline			Antidegradation Allocations			Most Limiting Allocations		
		Acute	Chronic	HH (PWS)	Acute	Chronic	HH (PWS)	Acute	Chronic	HH (PWS)	Acute	Chronic	HH (PWS)	Acute	Chronic	HH (PWS)
Chlorobromomethane <sup>c</sup>	0	--	--	na	--	--	na	--	--	--	--	--	--	--	--	na
Chloroform	0	--	--	1.1E-04	--	--	1.1E-04	--	--	--	--	--	--	--	--	1.1E+02
2-Chloronaphthalene	0	--	--	na	--	--	na	--	--	--	--	--	--	--	--	na
2-Chlorophenol	0	--	--	1.6E-03	--	--	1.6E-03	--	--	--	--	--	--	--	--	na
Chlorpyrifos	0	--	--	1.5E-02	--	--	1.5E-02	--	--	--	--	--	--	--	--	na
Chromium III	0	8.3E-02	4.1E-02	na	8.3E-02	4.1E-02	na	--	--	--	--	--	--	8.3E-02	4.1E-02	na
Chromium VI	0	5.6E+02	7.2E+01	na	5.6E+02	7.2E+01	na	--	--	--	--	--	--	5.6E+02	7.2E+01	na
Chromium, Total	0	1.6E+01	1.1E+01	na	1.6E+01	1.1E+01	na	--	--	--	--	--	--	1.6E+01	1.1E+01	na
Chrysene <sup>c</sup>	0	--	--	1.0E+02	--	--	na	--	--	--	--	--	--	--	--	na
Copper	0	--	--	na	--	--	na	--	--	--	--	--	--	--	--	na
Cyanide, Free	0	1.3E+01	8.7E+00	na	1.3E+01	8.7E+00	na	--	--	--	--	--	--	1.3E+01	8.7E+00	na
DDD <sup>c</sup>	0	2.2E+01	5.2E+00	na	2.2E+01	5.2E+00	na	--	--	--	--	--	--	2.2E+01	5.2E+00	na
DDE <sup>c</sup>	0	--	--	na	--	--	na	--	--	--	--	--	--	--	--	na
DDT <sup>c</sup>	0	--	--	na	--	--	na	--	--	--	--	--	--	--	--	na
Demeton	0	1.1E+00	1.0E-03	na	1.1E+00	1.0E-03	na	--	--	--	--	--	--	1.1E+00	1.0E-03	na
Diazinon	0	--	1.0E-01	na	--	1.0E-01	na	--	--	--	--	--	--	--	1.0E-01	na
Dibenz(a,h)anthracene <sup>c</sup>	0	1.7E-01	1.7E-01	na	1.7E-01	1.7E-01	na	--	--	--	--	--	--	1.7E-01	1.7E-01	na
1,2-Dichlorobenzene	0	--	--	na	--	--	na	--	--	--	--	--	--	--	--	na
1,3-Dichlorobenzene	0	--	--	na	--	--	na	--	--	--	--	--	--	--	--	na
1,4-Dichlorobenzene	0	--	--	na	--	--	na	--	--	--	--	--	--	--	--	na
3,3-Dichlorobenzidine <sup>c</sup>	0	--	--	na	--	--	na	--	--	--	--	--	--	--	--	na
Dichlorobromomethane <sup>c</sup>	0	--	--	na	--	--	na	--	--	--	--	--	--	--	--	na
1,2-Dichloroethane <sup>c</sup>	0	--	--	na	--	--	na	--	--	--	--	--	--	--	--	na
1,1-Dichloroethylene	0	--	--	na	--	--	na	--	--	--	--	--	--	--	--	na
1,2-trans-dichloroethylene	0	--	--	na	--	--	na	--	--	--	--	--	--	--	--	na
2,4-Dichlorophenol	0	--	--	na	--	--	na	--	--	--	--	--	--	--	--	na
2,4-Dichlorophenoxy acetic acid (2,4-D)	0	--	--	na	--	--	na	--	--	--	--	--	--	--	--	na
1,2-Dichloropropane <sup>c</sup>	0	--	--	na	--	--	na	--	--	--	--	--	--	--	--	na
1,3-Dichloropropene <sup>c</sup>	0	--	--	na	--	--	na	--	--	--	--	--	--	--	--	na
Dieldrin <sup>c</sup>	0	2.4E-01	5.6E-02	na	2.4E-01	5.6E-02	na	--	--	--	--	--	--	2.4E-01	5.6E-02	na
Diethyl Phthalate	0	--	--	na	--	--	na	--	--	--	--	--	--	--	--	na
2,4-Dimethylphenol	0	--	--	na	--	--	na	--	--	--	--	--	--	--	--	na
Dimethyl Phthalate	0	--	--	na	--	--	na	--	--	--	--	--	--	--	--	na
Di-n-Butyl Phthalate	0	--	--	na	--	--	na	--	--	--	--	--	--	--	--	na
2,4-Dinitrophenol	0	--	--	na	--	--	na	--	--	--	--	--	--	--	--	na
2-Methyl-4,6-Dinitrophenol	0	--	--	na	--	--	na	--	--	--	--	--	--	--	--	na
2,4-Dinitrotoluene <sup>c</sup>	0	--	--	na	--	--	na	--	--	--	--	--	--	--	--	na
Dioxin 2,3,7,8- tetrachlorodibenzo-p-dioxin	0	--	--	na	--	--	na	--	--	--	--	--	--	--	--	na
1,2-Diphenylhydrazine <sup>c</sup>	0	--	--	na	--	--	na	--	--	--	--	--	--	--	--	na
Alpha-Endosulfan	0	2.2E-01	5.6E-02	na	2.2E-01	5.6E-02	na	--	--	--	--	--	--	2.2E-01	5.6E-02	na
Beta-Endosulfan	0	2.2E-01	5.6E-02	na	2.2E-01	5.6E-02	na	--	--	--	--	--	--	2.2E-01	5.6E-02	na
Alpha + Beta Endosulfan	0	2.2E-01	5.6E-02	--	2.2E-01	5.6E-02	--	--	--	--	--	--	--	2.2E-01	5.6E-02	--
Endosulfan Sulfate	0	--	--	na	--	--	na	--	--	--	--	--	--	--	--	na
Endrin	0	8.6E-02	3.6E-02	na	8.6E-02	3.6E-02	na	--	--	--	--	--	--	8.6E-02	3.6E-02	na
Endrin Aldehyde	0	--	--	na	--	--	na	--	--	--	--	--	--	--	--	na

Parameter (ug/l unless noted)	Background Conc.	Water Quality Criteria			Wasteload Allocations			Antidegradation Baseline			Antidegradation Allocations			Most Limiting Allocations		
		Acute	Chronic	HH (PWS)	Acute	Chronic	HH (PWS)	Acute	Chronic	HH (PWS)	Acute	Chronic	HH (PWS)	Acute	Chronic	HH (PWS)
Ethylbenzene	0	--	--	na	--	--	na	--	--	--	--	--	--	--	--	na
Fluoranthene	0	--	--	na	--	--	na	--	--	--	--	--	--	--	--	na
Fluorene	0	--	--	na	--	--	na	--	--	--	--	--	--	--	--	na
Foaming Agents	0	--	--	na	--	--	na	--	--	--	--	--	--	--	--	na
Guthion	0	--	1.0E-02	na	--	1.0E-02	na	--	--	--	--	--	--	--	1.0E-02	na
Heptachlor <sup>c</sup>	0	5.2E-01	3.8E-03	na	5.2E-01	3.8E-03	na	7.9E-04	--	--	--	--	--	5.2E-01	3.8E-03	na
Heptachlor Epoxide <sup>c</sup>	0	5.2E-01	3.8E-03	na	5.2E-01	3.8E-03	na	3.9E-04	--	--	--	--	--	5.2E-01	3.8E-03	na
Hexachlorobenzene <sup>c</sup>	0	--	--	na	--	--	na	2.9E-03	--	--	--	--	--	--	--	na
Hexachlorobutadiene <sup>c</sup>	0	--	--	na	--	--	na	1.8E+02	--	--	--	--	--	--	--	na
Hexachlorocyclohexane	0	--	--	na	--	--	na	4.9E-02	--	--	--	--	--	--	--	na
Alpha-BHC <sup>c</sup>	0	--	--	na	--	--	na	1.7E-01	--	--	--	--	--	--	--	na
Hexachlorocyclohexane	0	--	--	na	--	--	na	1.7E-01	--	--	--	--	--	--	--	na
Beta-BHC <sup>c</sup>	0	9.5E-01	na	na	9.5E-01	--	na	1.8E+00	--	--	--	--	--	9.5E-01	--	na
Hexachlorocyclohexane	0	--	--	na	--	--	na	1.1E+03	--	--	--	--	--	--	--	na
Gamma-BHC <sup>c</sup> (Lindane)	0	--	--	na	--	--	na	3.3E+01	--	--	--	--	--	--	--	na
Hexachlorocyclopentadiene	0	--	--	na	--	--	na	2.0E+00	--	--	--	--	--	--	--	na
Hexachloroethane <sup>c</sup>	0	--	2.0E+00	na	--	--	na	1.8E-01	--	--	--	--	--	--	2.0E+00	na
Hydrogen Sulfide	0	--	--	na	--	--	na	1.8E-01	--	--	--	--	--	--	--	na
Indeno (1,2,3-cd) pyrene <sup>c</sup>	0	--	--	na	--	--	na	9.6E+03	--	--	--	--	--	--	--	na
Iron	0	--	--	na	--	--	na	9.6E+03	--	--	--	--	--	--	--	na
Isophorone <sup>c</sup>	0	--	0.0E+00	na	--	0.0E+00	na	--	--	--	--	--	--	--	0.0E+00	na
Kepon	0	1.1E+02	1.3E+01	na	1.1E+02	1.3E+01	na	--	--	--	--	--	--	1.1E+02	1.3E+01	na
Lead	0	--	1.0E-01	na	--	1.0E-01	na	--	--	--	--	--	--	--	1.0E-01	na
Malathion	0	--	--	na	--	--	na	--	--	--	--	--	--	--	--	na
Manganese	0	--	--	na	--	--	na	--	--	--	--	--	--	--	--	na
Mercury	0	1.4E+00	7.7E-01	--	1.4E+00	7.7E-01	--	--	--	--	--	--	--	1.4E+00	7.7E-01	--
Methyl Bromide	0	--	--	na	--	--	na	1.5E+03	--	--	--	--	--	--	--	na
Methylene Chloride <sup>c</sup>	0	--	--	na	--	--	na	5.9E+03	--	--	--	--	--	--	--	na
Methoxychlor	0	--	3.0E-02	na	--	3.0E-02	na	--	--	--	--	--	--	--	3.0E-02	na
Mirex	0	--	0.0E+00	na	--	0.0E+00	na	--	--	--	--	--	--	--	0.0E+00	na
Nickel	0	1.8E+02	2.0E+01	na	1.8E+02	2.0E+01	na	4.6E+03	--	--	--	--	--	1.8E+02	2.0E+01	na
Nitrate (as N)	0	--	--	na	--	--	na	--	--	--	--	--	--	--	--	na
Nitrobenzene	0	--	--	na	--	--	na	6.9E+02	--	--	--	--	--	--	--	na
N-Nitrosodimethylamine <sup>c</sup>	0	--	--	na	--	--	na	3.0E+01	--	--	--	--	--	--	--	na
N-Nitrosodiphenylamine <sup>c</sup>	0	--	--	na	--	--	na	6.0E+01	--	--	--	--	--	--	--	na
N-Nitrosodi-n-propylamine <sup>c</sup>	0	--	--	na	--	--	na	5.1E+00	--	--	--	--	--	--	--	na
Nonylphenol	0	2.8E+01	6.6E+00	na	2.8E+01	6.6E+00	na	--	--	--	--	--	--	2.8E+01	6.6E+00	na
Parathion	0	6.5E-02	1.3E-02	na	6.5E-02	1.3E-02	na	--	--	--	--	--	--	6.5E-02	1.3E-02	na
POB Total <sup>c</sup>	0	--	1.4E-02	na	--	1.4E-02	na	6.4E-04	--	--	--	--	--	--	1.4E-02	na
Pentachlorophenol <sup>c</sup>	0	4.3E+00	3.3E+00	na	4.3E+00	3.3E+00	na	3.0E+01	--	--	--	--	--	4.3E+00	3.3E+00	na
Phenol	0	--	--	na	--	--	na	8.6E+05	--	--	--	--	--	--	--	na
Pyrene	0	--	--	na	--	--	na	4.0E+03	--	--	--	--	--	--	--	na
Radionuclides	0	--	--	na	--	--	na	--	--	--	--	--	--	--	--	na
Gross Alpha Activity (pCi/L)	0	--	--	na	--	--	na	--	--	--	--	--	--	--	--	na
Beta and Photon Activity (mem/yr)	0	--	--	na	--	--	na	4.0E+00	--	--	--	--	--	--	--	na
Radium 226 + 228 (pCi/L)	0	--	--	na	--	--	na	--	--	--	--	--	--	--	--	na
Uranium (ug/l)	0	--	--	na	--	--	na	--	--	--	--	--	--	--	--	na

Parameter (ug/l unless noted)	Background Conc.	Water Quality Criteria			Wasteload Allocations			Antidegradation Baseline			Antidegradation Allocations			Most Limiting Allocations		
		Acute	Chronic	HH (PWS)	Acute	Chronic	HH (PWS)	Acute	Chronic	HH (PWS)	Acute	Chronic	HH (PWS)	Acute	Chronic	HH (PWS)
Selenium, Total Recoverable	0	2.0E+01	5.0E+00	na	4.2E+03	na	4.2E+03	--	--	--	--	--	--	2.0E+01	5.0E+00	na
Silver	0	3.3E+00	--	na	--	na	--	--	--	--	--	--	--	3.3E+00	--	na
Sulfate	0	--	--	na	--	na	--	--	--	--	--	--	--	--	--	na
1,1,2,2-Tetrachloroethane <sup>c</sup>	0	--	--	na	4.0E+01	na	4.0E+01	--	--	--	--	--	--	--	--	na
Tetrachloroethylene <sup>c</sup>	0	--	--	na	3.3E+01	na	3.3E+01	--	--	--	--	--	--	--	--	na
Thallium	0	--	--	na	4.7E-01	na	4.7E-01	--	--	--	--	--	--	--	--	na
Toluene	0	--	--	na	6.0E+03	na	6.0E+03	--	--	--	--	--	--	--	--	na
Total dissolved solids	0	--	--	na	--	na	--	--	--	--	--	--	--	--	--	na
Toxaphene <sup>c</sup>	0	7.3E-01	2.0E-04	na	2.8E-03	na	2.8E-03	--	--	--	--	--	--	7.3E-01	2.0E-04	na
Tributyltin	0	4.6E-01	7.2E-02	na	--	na	--	--	--	--	--	--	--	4.6E-01	7.2E-02	na
1,2,4-Trichlorobenzene	0	--	--	na	7.0E+01	na	7.0E+01	--	--	--	--	--	--	--	--	na
1,1,2-Trichloroethane <sup>c</sup>	0	--	--	na	1.6E+02	na	1.6E+02	--	--	--	--	--	--	--	--	na
Trichloroethylene <sup>c</sup>	0	--	--	na	3.0E+02	na	3.0E+02	--	--	--	--	--	--	--	--	na
2,4,6-Trichlorophenol <sup>c</sup>	0	--	--	na	2.4E+01	na	2.4E+01	--	--	--	--	--	--	--	--	na
2-(2,4,5-Trichlorophenoxy)proionic acid (Silvex)	0	--	--	na	--	na	--	--	--	--	--	--	--	--	--	na
Vinyl Chloride <sup>c</sup>	0	--	--	na	2.4E+01	na	2.4E+01	--	--	--	--	--	--	--	--	na
Zinc	0	1.1E+02	1.2E+02	na	2.6E+04	na	2.6E+04	--	--	--	--	--	--	1.1E+02	1.2E+02	na

Notes:

- All concentrations expressed as micrograms/liter (ug/l), unless noted otherwise
- Discharge flow is highest monthly average or Form 20 maximum for Industries and design flow for Municipals
- Metals measured as Dissolved, unless specified otherwise
- "C" indicates a carcinogenic parameter
- Regular WLAs are mass balances (minus background concentration) using the % of stream flow entered above under Mixing Information.  
Antidegradation WLAs are based upon a complete mix.
- Antideg. Baseline = (0.25(WQC - background conc.) + background conc.) for acute and chronic  
= (0.1(WQC - background conc.) + background conc.) for human health
- WLAs established at the following stream flows: 1Q10 for Acute, 30Q10 for Chronic Ammonia, 7Q10 for Other Chronic, 30Q5 for Non-carcinogens and Harmonic Mean for Carcinogens. To apply mixing ratios from a model set the stream flow equal to (mixing ratio - 1), effluent flow equal to 1 and 100% mix.

Metal	Target Value (SSTV)
Antimony	6.4E+02
Arsenic	9.0E+01
Barium	na
Cadmium	6.6E-01
Chromium III	4.3E+01
Chromium VI	6.4E+00
Copper	5.2E+00
Iron	na
Lead	7.9E+00
Manganese	na
Mercury	4.6E-01
Nickel	1.2E+01
Selenium	3.0E+00
Silver	1.3E+00
Zinc	4.6E+01

Note: do not use QL's lower than the minimum QL's provided in agency guidance

DMR QA/QC

Permit #:VA0088714

Facility:Hoover Treated Wood Products

<u>Due</u>	<u>Outfall</u>	<u>Parameter Description</u>	<u>CONC MAX</u>	<u>Lim Max</u>
10-Jul-07	001	PH	6.54	9.0
10-Jan-08	001	PH	NULL	9.0
10-Jul-08	001	PH	7.42	9.0
10-Jan-09	001	PH	6.72	9.0
10-Jul-09	001	PH	6.45	9.0
10-Jan-10	001	PH	7.34	9.0
10-Jul-10	001	PH	6.37	9.0
10-Jan-11	001	PH	6.12	9.0
10-Jul-07	003	PH	6.50	9.0
10-Jan-08	003	PH	NULL	9.0
10-Jul-08	003	PH	6.92	9.0
10-Jan-09	003	PH	7.01	9.0
10-Jul-09	003	PH	6.39	9.0
10-Jan-10	003	PH	7.48	9.0
10-Jul-10	003	PH	5.79	9.0
10-Jan-11	003	PH	7.22	9.0
10-Jul-07	004	PH	6.52	9.0
10-Jan-08	004	PH	NULL	9.0
10-Jul-08	004	PH	7.04	9.0
10-Jan-09	004	PH	6.71	9.0
10-Jul-09	004	PH	6.49	9.0
10-Jan-10	004	PH	7.56	9.0
10-Jul-10	004	PH	6.36	9.0
10-Jan-11	004	PH	6.78	9.0
10-Jul-07	006	PH	NR	9.0
10-Jan-08	006	PH	6.52	9.0
10-Jul-08	006	PH	NULL	9.0
10-Jan-09	006	PH	7.03	9.0
10-Jul-09	006	PH	6.93	9.0
10-Jan-10	006	PH	6.34	9.0
10-Jul-10	006	PH	7.31	9.0

DMR QA/QC (Continued)

Permit #: VA0088714 Facility: Hoover Treated Wood Products

<u>Due</u>	<u>Outfall</u>	<u>Parameter Description</u>	<u>CONC MAX</u>	<u>Lim Max</u>
10-Jan-11	006	PH	6.34	9.0
10-Jul-07	006	PH	6.22	9.0
		90% pH =	7.4 S.U.	
		10% pH =	6.3 S.U.	



DMR QA/QC

Permit #: VA0088714 Facility: Hoover Treated Wood Products

<u>Due</u>	<u>Outfall</u>	<u>Parameter Description</u>	<u>CONC MAX</u>	<u>Lim Max</u>
10-Jul-07	001	HARDNESS, TOTAL (AS CACO3)	96	NL
10-Jan-08	001	HARDNESS, TOTAL (AS CACO3)	NULL	NL
10-Jul-08	001	HARDNESS, TOTAL (AS CACO3)	340	NL
10-Jan-09	001	HARDNESS, TOTAL (AS CACO3)	220	NL
10-Jul-09	001	HARDNESS, TOTAL (AS CACO3)	54	NL
10-Jan-10	001	HARDNESS, TOTAL (AS CACO3)	52	NL
10-Jul-10	001	HARDNESS, TOTAL (AS CACO3)	80	NL
10-Jan-11	001	HARDNESS, TOTAL (AS CACO3)	104	NL
10-Jul-07	003	HARDNESS, TOTAL (AS CACO3)	100	NL
10-Jan-08	003	HARDNESS, TOTAL (AS CACO3)	NULL	NL
10-Jul-08	003	HARDNESS, TOTAL (AS CACO3)	260	NL
10-Jan-09	003	HARDNESS, TOTAL (AS CACO3)	210	NL
10-Jul-09	003	HARDNESS, TOTAL (AS CACO3)	32	NL
10-Jan-10	003	HARDNESS, TOTAL (AS CACO3)	74	NL
10-Jul-10	003	HARDNESS, TOTAL (AS CACO3)	96	NL
10-Jan-11	003	HARDNESS, TOTAL (AS CACO3)	92	NL
10-Jul-07	004	HARDNESS, TOTAL (AS CACO3)	44	NL
10-Jan-08	004	HARDNESS, TOTAL (AS CACO3)	NULL	NL
10-Jul-08	004	HARDNESS, TOTAL (AS CACO3)	40	NL
10-Jan-09	004	HARDNESS, TOTAL (AS CACO3)	96	NL
10-Jul-09	004	HARDNESS, TOTAL (AS CACO3)	48	NL
10-Jan-10	004	HARDNESS, TOTAL (AS CACO3)	38	NL
10-Jul-10	004	HARDNESS, TOTAL (AS CACO3)	128	NL
10-Jan-11	004	HARDNESS, TOTAL (AS CACO3)	48	NL
10-Jul-07	006	HARDNESS, TOTAL (AS CACO3)	NR	NL
10-Jan-08	006	HARDNESS, TOTAL (AS CACO3)	62	NL
10-Jul-08	006	HARDNESS, TOTAL (AS CACO3)	NULL	NL
10-Jan-09	006	HARDNESS, TOTAL (AS CACO3)	44	NL
10-Jul-09	006	HARDNESS, TOTAL (AS CACO3)	80	NL
10-Jan-10	006	HARDNESS, TOTAL (AS CACO3)	46	NL
10-Jul-10	006	HARDNESS, TOTAL (AS CACO3)	44	NL

DMR QA/QC (Continued)

Permit #: VA0088714 Facility: Hoover Treated Wood Products

<u>Due</u>	<u>Outfall</u>	<u>Parameter Description</u>	<u>CONC MAX</u>	<u>Lim Max</u>
10-Jan-11	006	HARDNESS, TOTAL (AS CaCO3)	100	NL
10-Jul-07	006	HARDNESS, TOTAL (AS CaCO3)	76	NL
Average Hardness =			97 mg/L	

8/12/2011 9:16:50 AM

Facility = Hoover Treated Wood Products

Chemical = Ammonia

Chronic averaging period = 30

WLAa = 23

WLAc = 2.4

Q.L. = 0.20

# samples/mo. = 1

# samples/wk. = 1

#### Summary of Statistics:

# observations = 17

Expected Value = 3.71875

Variance = 14.0985

C.V. = 1.009694

97th percentile daily values = 12.6659

97th percentile 4 day average = 8.13462

97th percentile 30 day average = 5.00823

# < Q.L. = 0

Model used = lognormal

A limit is needed based on Chronic Toxicity

Maximum Daily Limit = 6.06965210654734

Average Weekly limit = 6.06965210654734

Average Monthly Limit = 6.06965210654734

The data are:

2.1

1.4

1.82

1.4

3.36

3.08

2.52

2.38

4.2

35.8

2.24

1.82

1.54

3.64

0.8

1.5

6.6

DMR QA/QC

Permit #:VA0088714 Facility:Hoover Treated Wood Products

<u>Due</u>	<u>Outfall</u>	<u>Parameter Description</u>	<u>CONC MAX</u>	<u>Lim Max</u>
10-Jan-08	003	AMMONIA, AS N	NULL	NL
10-Jan-08	004	AMMONIA, AS N	NULL	NL
10-Jan-08	001	AMMONIA, AS N	NULL	NL
10-Jan-08	006	AMMONIA, AS N	NULL	NL
10-Jul-08	003	AMMONIA, AS N	2.1	NL
10-Jul-08	004	AMMONIA, AS N	1.4	NL
10-Jul-08	001	AMMONIA, AS N	<QL	NL
10-Jul-08	006	AMMONIA, AS N	1.82	NL
10-Jan-09	003	AMMONIA, AS N	<QL	NL
10-Jan-09	004	AMMONIA, AS N	1.4	NL
10-Jan-09	001	AMMONIA, AS N	<QL	NL
10-Jan-09	006	AMMONIA, AS N	3.36	NL
10-Jul-09	001	AMMONIA, AS N	<QL	NL
10-Jul-09	004	AMMONIA, AS N	<QL	NL
10-Jul-09	003	AMMONIA, AS N	<QL	NL
10-Jul-09	006	AMMONIA, AS N	<QL	NL
10-Jan-10	001	AMMONIA, AS N	3.08	NL
10-Jan-10	004	AMMONIA, AS N	2.52	NL
10-Jan-10	003	AMMONIA, AS N	No data	NL
10-Jan-10	006	AMMONIA, AS N	2.38	NL
10-Jul-10	003	AMMONIA, AS N	4.2	NL
10-Jul-10	004	AMMONIA, AS N	35.8	NL
10-Jul-10	001	AMMONIA, AS N	<QL	NL
10-Jul-10	006	AMMONIA, AS N	<QL	NL
10-Jan-11	003	AMMONIA, AS N	2.24	NL
10-Jan-11	004	AMMONIA, AS N	1.82	NL
10-Jan-11	001	AMMONIA, AS N	1.54	NL
10-Jan-11	006	AMMONIA, AS N	3.64	NL
10-Jul-11	003	AMMONIA, AS N	0.80	NL
10-Jul-11	004	AMMONIA, AS N	<QL	NL
10-Jul-11	001	AMMONIA, AS N	1.5	NL

DMR QA/QC (Continued)

Permit #: VA0088714 Facility: Hoover Treated Wood Products

<u>Due</u>	<u>Outfall</u>	<u>Parameter Description</u>	<u>CONC MAX</u>	<u>Lim Max</u>
10-Jul-11	006	AMMONIA, AS N	6.6	NL

4/11/2011 11:18:24 AM

Facility = Hoover Treated Wood Products

Chemical = Arsenic

Chronic averaging period = 30

WLAa = 340

WLAc = 150

Q.L. = 1.0

# samples/mo. = 1

# samples/wk. = 1

#### Summary of Statistics:

# observations = 24

Expected Value = 97.7737

Variance = 25878.6

C.V. = 1.645311

97th percentile daily values = 437.307

97th percentile 4 day average = 291.936

97th percentile 30 day average = 153.019

# < Q.L. = 0

Model used = lognormal

A limit is needed based on Acute Toxicity

Maximum Daily Limit = 340

Average Weekly limit = 340

Average Monthly Limit = 340

The data are:

18.3

9.07

54.4

91.3

87.5

5.09

118

73.1

97.2

84.2

106

288

136

14.9

58.2

15.7

458

10.3

60.4

30.6

136  
58.8  
10.8  
78.4

DMR QA/QC

Permit #:VA0088714 Facility:Hoover Treated Wood Products

<u>Due</u>	<u>Outfall</u>	<u>Parameter Description</u>	<u>CONC MAX</u>	<u>Lim Max</u>
10-Jan-08	001	ARSENIC, TOTAL RECOVERABLE	18.3	NL
10-Jul-08	001	ARSENIC, TOTAL RECOVERABLE	NULL	NL
10-Jan-09	001	ARSENIC, TOTAL RECOVERABLE	9.07	NL
10-Jul-09	001	ARSENIC, TOTAL RECOVERABLE	54.4	NL
10-Jan-10	001	ARSENIC, TOTAL RECOVERABLE	91.3	NL
10-Jul-10	001	ARSENIC, TOTAL RECOVERABLE	87.5	NL
10-Jan-11	001	ARSENIC, TOTAL RECOVERABLE	5.09	NL
10-Jul-07	001	ARSENIC, TOTAL RECOVERABLE	118	NL
10-Jan-08	003	ARSENIC, TOTAL RECOVERABLE	73.1	NL
10-Jul-08	003	ARSENIC, TOTAL RECOVERABLE	NULL	NL
10-Jan-09	003	ARSENIC, TOTAL RECOVERABLE	97.2	NL
10-Jul-09	003	ARSENIC, TOTAL RECOVERABLE	84.2	NL
10-Jan-10	003	ARSENIC, TOTAL RECOVERABLE	<QL	NL
10-Jul-10	003	ARSENIC, TOTAL RECOVERABLE	106	NL
10-Jan-11	003	ARSENIC, TOTAL RECOVERABLE	288	NL
10-Jul-07	003	ARSENIC, TOTAL RECOVERABLE	136	NL
10-Jan-08	004	ARSENIC, TOTAL RECOVERABLE	<QL	NL
10-Jul-08	004	ARSENIC, TOTAL RECOVERABLE	NULL	NL
10-Jan-09	004	ARSENIC, TOTAL RECOVERABLE	14.9	NL
10-Jul-09	004	ARSENIC, TOTAL RECOVERABLE	58.2	NL
10-Jan-10	004	ARSENIC, TOTAL RECOVERABLE	<QL	NL
10-Jul-10	004	ARSENIC, TOTAL RECOVERABLE	15.7	NL
10-Jan-11	004	ARSENIC, TOTAL RECOVERABLE	458	NL
10-Jul-07	004	ARSENIC, TOTAL RECOVERABLE	10.3	NL
10-Jan-08	006	ARSENIC, TOTAL RECOVERABLE	NR	NL
10-Jul-08	006	ARSENIC, TOTAL RECOVERABLE	60.4	NL
10-Jan-09	006	ARSENIC, TOTAL RECOVERABLE	NULL	NL
10-Jul-09	006	ARSENIC, TOTAL RECOVERABLE	30.6	NL
10-Jan-10	006	ARSENIC, TOTAL RECOVERABLE	<QL	NL
10-Jul-10	006	ARSENIC, TOTAL RECOVERABLE	136	NL
10-Jan-11	006	ARSENIC, TOTAL RECOVERABLE	58.8	NL



DMR QA/QC (Continued)

Permit #: VA0088714 Facility: Hoover Treated Wood Products

<u>Due</u>	<u>Outfall</u>	<u>Parameter Description</u>	<u>CONC MAX</u>	<u>Lim Max</u>
10-Jul-07	006	ARSENIC, TOTAL RECOVERABLE	10.8	NL
10-Jan-08	006	ARSENIC, TOTAL RECOVERABLE	78.4	NL

4/11/2011 11:25:01 AM

Facility = Hoover Treated Wood Products

Chemical = Chromium

Chronic averaging period = 30

WLAa = 16

WLAc = 11

Q.L. = 0.5

# samples/mo. = 1

# samples/wk. = 1

#### Summary of Statistics:

# observations = 20

Expected Value = 25.2108

Variance = 940.607

C.V. = 1.216511

97th percentile daily values = 96.1364

97th percentile 4 day average = 61.8826

97th percentile 30 day average = 35.7434

# < Q.L. = 0

Model used = lognormal

A limit is needed based on Acute Toxicity

Maximum Daily Limit = 16

Average Weekly limit = 16

Average Monthly Limit = 16

The data are:

9.97

7.53

8.14

7.32

65.5

10.7

8.04

80.3

66.6

6.09

9.63

5.88

45.1

9.1

8.31

11.9

20.9

27.1

10.9

105

DMR QA/QC

Permit #:VA0088714 Facility:Hoover Treated Wood Products

<u>Due</u>	<u>Outfall</u>	<u>Parameter Description</u>	<u>CONC MAX</u>	<u>Lim Max</u>
10-Jul-07	001	CHROMIUM, TOTAL RECOVERABLE	9.97	NL
10-Jan-08	001	CHROMIUM, TOTAL RECOVERABLE	NULL	NL
10-Jul-08	001	CHROMIUM, TOTAL RECOVERABLE	<QL	NL
10-Jan-09	001	CHROMIUM, TOTAL RECOVERABLE	7.53	NL
10-Jul-09	001	CHROMIUM, TOTAL RECOVERABLE	8.14	NL
10-Jan-10	001	CHROMIUM, TOTAL RECOVERABLE	7.32	NL
10-Jul-10	001	CHROMIUM, TOTAL RECOVERABLE	<QL	NL
10-Jan-11	001	CHROMIUM, TOTAL RECOVERABLE	65.5	NL
10-Jul-07	003	CHROMIUM, TOTAL RECOVERABLE	10.7	NL
10-Jan-08	003	CHROMIUM, TOTAL RECOVERABLE	NULL	NL
10-Jul-08	003	CHROMIUM, TOTAL RECOVERABLE	<QL	NL
10-Jan-09	003	CHROMIUM, TOTAL RECOVERABLE	<QL	NL
10-Jul-09	003	CHROMIUM, TOTAL RECOVERABLE	<QL	NL
10-Jan-10	003	CHROMIUM, TOTAL RECOVERABLE	8.04	NL
10-Jul-10	003	CHROMIUM, TOTAL RECOVERABLE	80.3	NL
10-Jan-11	003	CHROMIUM, TOTAL RECOVERABLE	66.6	NL
10-Jul-07	004	CHROMIUM, TOTAL RECOVERABLE	<QL	NL
10-Jan-08	004	CHROMIUM, TOTAL RECOVERABLE	NULL	NL
10-Jul-08	004	CHROMIUM, TOTAL RECOVERABLE	6.09	NL
10-Jan-09	004	CHROMIUM, TOTAL RECOVERABLE	9.63	NL
10-Jul-09	004	CHROMIUM, TOTAL RECOVERABLE	<QL	NL
10-Jan-10	004	CHROMIUM, TOTAL RECOVERABLE	5.88	NL
10-Jul-10	004	CHROMIUM, TOTAL RECOVERABLE	45.1	NL
10-Jan-11	004	CHROMIUM, TOTAL RECOVERABLE	9.1	NL
10-Jul-07	006	CHROMIUM, TOTAL RECOVERABLE	NR	NL
10-Jan-08	006	CHROMIUM, TOTAL RECOVERABLE	8.31	NL
10-Jul-08	006	CHROMIUM, TOTAL RECOVERABLE	NULL	NL
10-Jan-09	006	CHROMIUM, TOTAL RECOVERABLE	11.9	NL
10-Jul-09	006	CHROMIUM, TOTAL RECOVERABLE	<QL	NL
10-Jan-10	006	CHROMIUM, TOTAL RECOVERABLE	20.9	NL
10-Jul-10	006	CHROMIUM, TOTAL RECOVERABLE	27.1	NL

DMR QA/QC (Continued)

Permit #: VA0088714 Facility: Hoover Treated Wood Products

<u>Due</u>	<u>Outfall</u>	<u>Parameter Description</u>	<u>CONC MAX</u>	<u>Lim Max</u>
10-Jan-11	006	CHROMIUM, TOTAL RECOVERABLE	10.9	NL
10-Jul-07	006	CHROMIUM, TOTAL RECOVERABLE	105	NL

4/11/2011 11:27:31 AM

Facility = Hoover Treated Wood Products

Chemical = Copper

Chronic averaging period = 30

WLAa = 13

WLAc = 8.7

Q.L. = 0.5

# samples/mo. = 1

# samples/wk. = 1

#### Summary of Statistics:

# observations = 23

Expected Value = 37.8886

Variance = 1250.97

C.V. = 0.933500

97th percentile daily values = 122.778

97th percentile 4 day average = 79.1366

97th percentile 30 day average = 50.0351

# < Q.L. = 0

Model used = lognormal

A limit is needed based on Acute Toxicity

Maximum Daily Limit = 13

Average Weekly limit = 13

Average Monthly Limit = 13

The data are:

20.6

6.37

19.4

34.2

27.3

116

17.9

25.9

50

22.5

53.8

113

17.2

12.7

27.4

28.1

15.1

13.9

22.8

7.03

49.2  
56.5  
109

DMR QA/QC

Permit #:VA0088714 Facility:Hoover Treated Wood Products

<u>Due</u>	<u>Outfall</u>	<u>Parameter Description</u>	<u>CONC MAX</u>	<u>Lim Max</u>
10-Jul-07	001	COPPER, TOTAL RECOVERABLE	20.6	NL
10-Jan-08	001	COPPER, TOTAL RECOVERABLE	NULL	NL
10-Jul-08	001	COPPER, TOTAL RECOVERABLE	6.37	NL
10-Jan-09	001	COPPER, TOTAL RECOVERABLE	19.4	NL
10-Jul-09	001	COPPER, TOTAL RECOVERABLE	34.2	NL
10-Jan-10	001	COPPER, TOTAL RECOVERABLE	27.3	NL
10-Jul-10	001	COPPER, TOTAL RECOVERABLE	<QL	NL
10-Jan-11	001	COPPER, TOTAL RECOVERABLE	116	NL
10-Jul-07	003	COPPER, TOTAL RECOVERABLE	17.9	NL
10-Jan-08	003	COPPER, TOTAL RECOVERABLE	NULL	NL
10-Jul-08	003	COPPER, TOTAL RECOVERABLE	25.9	NL
10-Jan-09	003	COPPER, TOTAL RECOVERABLE	50	NL
10-Jul-09	003	COPPER, TOTAL RECOVERABLE	<QL	NL
10-Jan-10	003	COPPER, TOTAL RECOVERABLE	22.5	NL
10-Jul-10	003	COPPER, TOTAL RECOVERABLE	53.8	NL
10-Jan-11	003	COPPER, TOTAL RECOVERABLE	113	NL
10-Jul-07	004	COPPER, TOTAL RECOVERABLE	<QL	NL
10-Jan-08	004	COPPER, TOTAL RECOVERABLE	NULL	NL
10-Jul-08	004	COPPER, TOTAL RECOVERABLE	17.2	NL
10-Jan-09	004	COPPER, TOTAL RECOVERABLE	12.7	NL
10-Jul-09	004	COPPER, TOTAL RECOVERABLE	<QL	NL
10-Jan-10	004	COPPER, TOTAL RECOVERABLE	27.4	NL
10-Jul-10	004	COPPER, TOTAL RECOVERABLE	28.1	NL
10-Jan-11	004	COPPER, TOTAL RECOVERABLE	15.1	NL
10-Jul-07	006	COPPER, TOTAL RECOVERABLE	NR	NL
10-Jan-08	006	COPPER, TOTAL RECOVERABLE	13.9	NL
10-Jul-08	006	COPPER, TOTAL RECOVERABLE	NULL	NL
10-Jan-09	006	COPPER, TOTAL RECOVERABLE	22.8	NL
10-Jul-09	006	COPPER, TOTAL RECOVERABLE	7.03	NL
10-Jan-10	006	COPPER, TOTAL RECOVERABLE	49.2	NL
10-Jul-10	006	COPPER, TOTAL RECOVERABLE	56.5	NL

DMR QA/QC (Continued)

Permit #: VA0088714 Facility: Hoover Treated Wood Products

<u>Due</u>	<u>Outfall</u>	<u>Parameter Description</u>	<u>CONC MAX</u>	<u>Lim Max</u>
10-Jan-11	006	COPPER, TOTAL RECOVERABLE	<QL	NL
10-Jul-07	006	COPPER, TOTAL RECOVERABLE	109	NL



4/11/2011 11:29:34 AM

Facility = Hoover Treated Wood Products

Chemical = Zinc

Chronic averaging period = 30

WLAa = 110

WLAc = 120

Q.L. = 2.0

# samples/mo. = 1

# samples/wk. = 1

#### Summary of Statistics:

# observations = 14

Expected Value = 318.648

Variance = 887564.

C.V. = 2.956566

97th percentile daily values = 1743.91

97th percentile 4 day average = 1352.14

97th percentile 30 day average = 642.188

# < Q.L. = 0

Model used = lognormal

A limit is needed based on Acute Toxicity

Maximum Daily Limit = 110

Average Weekly limit = 110

Average Monthly Limit = 110

The data are:

36.5

1010

2050

14.3

339

60

462

28.7

41.7

62.8

53.6

75.7

19.8

218

DMR QA/QC

Permit #:VA0088714 Facility:Hoover Treated Wood Products

<u>Due</u>	<u>Outfall</u>	<u>Parameter Description</u>	<u>CONC MAX</u>	<u>Lim Max</u>
10-Jul-07	003	ZINC, TOTAL RECOVERABLE	36.5	NL
10-Jan-08	003	ZINC, TOTAL RECOVERABLE	NULL	NL
10-Jul-08	003	ZINC, TOTAL RECOVERABLE	1010	NL
10-Jan-09	003	ZINC, TOTAL RECOVERABLE	2050	NL
10-Jul-09	003	ZINC, TOTAL RECOVERABLE	14.3	NL
10-Jan-10	003	ZINC, TOTAL RECOVERABLE	339	NL
10-Jul-10	003	ZINC, TOTAL RECOVERABLE	60	NL
10-Jan-11	003	ZINC, TOTAL RECOVERABLE	462	NL
10-Apr-07	006	ZINC, TOTAL RECOVERABLE	NR	NL
10-Jul-07	006	ZINC, TOTAL RECOVERABLE	28.7	NL
10-Jan-08	006	ZINC, TOTAL RECOVERABLE	NULL	NL
10-Jul-08	006	ZINC, TOTAL RECOVERABLE	41.7	NL
10-Jan-09	006	ZINC, TOTAL RECOVERABLE	62.8	NL
10-Jul-09	006	ZINC, TOTAL RECOVERABLE	53.6	NL
10-Jan-10	006	ZINC, TOTAL RECOVERABLE	75.7	NL
10-Jul-10	006	ZINC, TOTAL RECOVERABLE	19.8	NL
10-Jan-11	006	ZINC, TOTAL RECOVERABLE	218	NL

## DEPARTMENT OF ENVIRONMENTAL QUALITY

Northern Regional Office

### Memorandum

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To: Susan Mackert  
Through: Cynthia Sale  
From: Kurt W. Kochan  
Date: July 12, 2011  
Re: Hoover Treated Wood Products Permit reissuance, Caroline County

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As requested, I have reviewed the file for the above-referenced facility, including the most recent Groundwater Monitoring report and associated data collected at the facility to comply with RCRA Post-Closure Permit requirements. The quarterly reporting and monitoring of the groundwater conditions at the site are required as part of VPDES permit #VA0088714. The purpose of this monitoring is to determine if the activities at this site are resulting or may result in violations of the State Water Control Board's Groundwater Standards and/or Antidegradation Policy for Groundwater. The requested review is part of the reissuing of the referenced permit.

Based upon my review of the file, it appears that the existing monitoring wells are placed in appropriate locations and that the monitoring wells are properly constructed to provide an accurate depiction of ground water conditions at the site. Groundwater samples are currently required to be collected from monitoring wells 1, 3, 4, 9, 10, 11, 12, 13, and 14 and submitted for laboratory analysis for the following parameters/constituents: pH, Conductivity, Total Dissolved Solids, Total Organic Carbon, and Ammonia. It appears that all samples have been collected and reports submitted based upon the requirements of the permit issued on August 25, 2006.

Based upon my review of the data provided since this date and compared to **9 VAC 25-280-10 et seq Groundwater Standards**, the following comments apply:

- Ammonia as nitrogen has in the past exceeded the criteria standard as per 9 VAC 25-280-70, Groundwater criteria listed for the Piedmont & Blue Ridge Physiographic Province. However, the existing permit stated that the permittee shall submit to the Department for review and approval no later than January 30, 2008, a corrective action plan to address high levels of ammonia as nitrogen in the ground water at its production site. The permit further states that the permittee may coordinate that corrective action plan with the plan required for its Hazardous Waste Management Post Closure Permit. Therefore, if the above-required actions have or are in the process of being implemented, no further action beyond the existing monitoring requirement appears necessary, except for the inclusion in the monitoring plan of a review of the data on a regular basis to ensure that the required corrective action is meeting the stated objective.

## DEPARTMENT OF ENVIRONMENTAL QUALITY

Northern Regional Office

Memorandum

Page 2 of 2

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- Other chemicals-of-concern, particularly arsenic, are present in the groundwater at the facility. However, arsenic and other metals are monitored under the RCRA Post-Closure Permit corrective actions. Therefore, any additional monitoring for arsenic or other dissolved metal would be redundant.

The current permit requires quarterly monitoring for monitoring wells 1, 3, 4, 9, 10, 11, 12, 13, and 14. The permittee is requesting that all monitoring requirements be removed for wells 1, 4, 9, 10, and 13. In addition, they are requesting that wells 3, 11, 12, and 14 be reduced to once every six months. Removal of wells 1, 4, 9, 10, and 13 from the monitoring schedule would result in the removal of all up- and down-gradient wells, thus not allowing for the monitoring of background concentrations or for the migration of contaminants of concern. Therefore, I would recommend that wells 1, 4, 9, 10, and 13 continued to be monitored. Reducing the frequency of monitoring of these wells from quarterly to semi-annually would not impair the effectiveness of the monitoring plan.

In summary, based upon the ground water data submitted from the site for the period of 2006-2011, several constituents of concern (COCs) were detected at concentrations above the Groundwater Standards as listed in **9 VAC 25-280-10 et seq.** The levels of the COCs observed during this time appear to be stable. In addition, a pump and treat system is currently operational at the site under a RCRA Post-Closure Permit. Therefore, only continued monitoring, as prescribed above is recommended, unless the corrective actions for ammonia as nitrogen, as required in the existing permit, have not been implemented. Then, it may be appropriate to include this requirement in the permit for this facility.

# Public Notice – Environmental Permit

**PURPOSE OF NOTICE:** To seek public comment on a draft permit from the Department of Environmental Quality that will allow the release of storm water into a water body in Caroline County, Virginia.

**PUBLIC COMMENT PERIOD:** September 23, 2011 to 5:00 p.m. on October 24, 2011

**PERMIT NAME:** Virginia Pollutant Discharge Elimination System Permit – Storm water issued by DEQ, under the authority of the State Water Control Board

**APPLICANT NAME, ADDRESS AND PERMIT NUMBER:** Hoover Treated Wood Products, Incorporated, 154 Wire Road, Thomson, GA 30824, VA0088714

**NAME AND ADDRESS OF FACILITY:** Hoover Treated Wood Products , 18315 House Drive, Milford, VA 22514

**PROJECT DESCRIPTION:** Hoover Treated Wood Products, Incorporated has applied for a reissuance of a permit for the private Hoover Treated Wood Products. The applicant proposes to release industrial storm water at a varying rate per rain event into a water body. The facility proposes to release the industrial storm water in to an unnamed tributary to the Mattaponi River in Caroline County in the York River watershed. A watershed is the land area drained by a river and its incoming streams. The permit will limit the following pollutants to amounts that protect water quality: pH. The permit will also require semi-annual monitoring for: Total Suspended Solids, Chemical Oxygen Demand, Oil and Grease, Ammonia, Total Nitrogen, Total Phosphorus, Hardness, Total Arsenic, Total Chromium, Total Copper, and Total Zinc.

**HOW TO COMMENT AND/OR REQUEST A PUBLIC HEARING:** DEQ accepts comments and requests for public hearing by e-mail, fax or postal mail. All comments and requests must be in writing and be received by DEQ during the comment period. Submittals must include the names, mailing addresses and telephone numbers of the commenter/requester and of all persons represented by the commenter/requester. A request for public hearing must also include: 1) The reason why a public hearing is requested. 2) A brief, informal statement regarding the nature and extent of the interest of the requester or of those represented by the requester, including how and to what extent such interest would be directly and adversely affected by the permit. 3) Specific references, where possible, to terms and conditions of the permit with suggested revisions. A public hearing may be held, including another comment period, if public response is significant, based on individual requests for a public hearing, and there are substantial, disputed issues relevant to the permit.

**CONTACT FOR PUBLIC COMMENTS, DOCUMENT REQUESTS AND ADDITIONAL INFORMATION:** The public may review the documents at the DEQ-Northern Regional Office by appointment, or may request electronic copies of the draft permit and fact sheet.

Name: Susan Mackert

Address: DEQ-Northern Regional Office, 13901 Crown Court, Woodbridge, VA 22193

Phone: (703) 583-3853 E-mail: [susan.mackert@deq.virginia.gov](mailto:susan.mackert@deq.virginia.gov) Fax: (703) 583-3821

**State "Transmittal Checklist" to Assist in Targeting  
Municipal and Industrial Individual NPDES Draft Permits for Review**

**Part I. State Draft Permit Submission Checklist**

In accordance with the MOA established between the Commonwealth of Virginia and the United States Environmental Protection Agency, Region III, the Commonwealth submits the following draft National Pollutant Discharge Elimination System (NPDES) permit for Agency review and concurrence.

Facility Name:	Hoover Treated Wood Products
NPDES Permit Number:	VA0088714
Permit Writer Name:	Susan Mackert
Date:	August 1, 2011

Major ☐Minor ☒Industrial ☒Municipal ☐**I.A. Draft Permit Package Submittal Includes:**

	Yes	No	N/A
1. Permit Application?	X		
2. Complete Draft Permit (for renewal or first time permit – entire permit, including boilerplate information)?	X		
3. Copy of Public Notice?	X		
4. Complete Fact Sheet?	X		
5. A Priority Pollutant Screening to determine parameters of concern?	X		
6. A Reasonable Potential analysis showing calculated WQBELs?	X		
7. Dissolved Oxygen calculations?			X
8. Whole Effluent Toxicity Test summary and analysis?	X		
9. Permit Rating Sheet for new or modified industrial facilities?	X		

**I.B. Permit/Facility Characteristics**

	Yes	No	N/A
1. Is this a new, or currently unpermitted facility?		X	
2. Are all permissible outfalls (including combined sewer overflow points, non-process water and storm water) from the facility properly identified and authorized in the permit?	X		
3. Does the fact sheet or permit contain a description of the wastewater treatment process?	X		
4. Does the review of PCS/DMR data for at least the last 3 years indicate significant non-compliance with the existing permit?		X	
5. Has there been any change in streamflow characteristics since the last permit was developed?		X	
6. Does the permit allow the discharge of new or increased loadings of any pollutants?		X	
7. Does the fact sheet or permit provide a description of the receiving water body(s) to which the facility discharges, including information on low/critical flow conditions and designated/existing uses?	X		
8. Does the facility discharge to a 303(d) listed water?		X	
a. Has a TMDL been developed and approved by EPA for the impaired water?			X
b. Does the record indicate that the TMDL development is on the State priority list and will most likely be developed within the life of the permit?			X
c. Does the facility discharge a pollutant of concern identified in the TMDL or 303(d) listed water?			X

<b>I.B. Permit/Facility Characteristics – cont.</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>
9. Have any limits been removed, or are any limits less stringent, than those in the current permit?		X	
10. Does the permit authorize discharges of storm water?	X		
11. Has the facility substantially enlarged or altered its operation or substantially increased its flow or production?		X	
12. Are there any production-based, technology-based effluent limits in the permit?		X	
13. Do any water quality-based effluent limit calculations differ from the State's standard policies or procedures?		X	
14. Are any WQBELs based on an interpretation of narrative criteria?			X
15. Does the permit incorporate any variances or other exceptions to the State's standards or regulations?		X	
16. Does the permit contain a compliance schedule for any limit or condition?		X	
17. Is there a potential impact to endangered/threatened species or their habitat by the facility's discharge(s)?		X	
18. Have impacts from the discharge(s) at downstream potable water supplies been evaluated?	X		
19. Is there any indication that there is significant public interest in the permit action proposed for this facility?		X	
20. Have previous permit, application, and fact sheet been examined?	X		

## Part II. NPDES Draft Permit Checklist

### Region III NPDES Permit Quality Review Checklist – For Non-Municipals

#### II.A. Permit Cover Page/Administration

	Yes	No	N/A
1. Does the fact sheet or permit describe the physical location of the facility, including latitude and longitude (not necessarily on permit cover page)?	X		
2. Does the permit contain specific authorization-to-discharge information (from where to where, by whom)?	X		

#### II.B. Effluent Limits – General Elements

	Yes	No	N/A
1. Does the fact sheet describe the basis of final limits in the permit (e.g., that a comparison of technology and water quality-based limits was performed, and the most stringent limit selected)?	X		
2. Does the fact sheet discuss whether “antibacksliding” provisions were met for any limits that are less stringent than those in the previous NPDES permit?			X

#### II.C. Technology-Based Effluent Limits (Effluent Guidelines & BPJ)

	Yes	No	N/A
1. Is the facility subject to a national effluent limitations guideline (ELG)?		X	
a. If yes, does the record adequately document the categorization process, including an evaluation of whether the facility is a new source or an existing source?			X
b. If no, does the record indicate that a technology-based analysis based on Best Professional Judgement (BPJ) was used for all pollutants of concern discharged at treatable concentrations?	X		
2. For all limits developed based on BPJ, does the record indicate that the limits are consistent with the criteria established at 40 CFR 125.3(d)?	X		
3. Does the fact sheet adequately document the calculations used to develop both ELG and /or BPJ technology-based effluent limits?	X		
4. For all limits that are based on production or flow, does the record indicate that the calculations are based on a “reasonable measure of ACTUAL production” for the facility (not design)?	X		
5. Does the permit contain “tiered” limits that reflect projected increases in production or flow?		X	
a. If yes, does the permit require the facility to notify the permitting authority when alternate levels of production or flow are attained?			X
6. Are technology-based permit limits expressed in appropriate units of measure (e.g., concentration, mass, SU)?	X		
7. Are all technology-based limits expressed in terms of both maximum daily, weekly average, and/or monthly average limits?	X		
8. Are any final limits less stringent than required by applicable effluent limitations guidelines or BPJ?		X	

#### II.D. Water Quality-Based Effluent Limits

	Yes	No	N/A
1. Does the permit include appropriate limitations consistent with 40 CFR 122.44(d) covering State narrative and numeric criteria for water quality?	X		
2. Does the record indicate that any WQBELs were derived from a completed and EPA approved TMDL?		X	
3. Does the fact sheet provide effluent characteristics for each outfall?	X		
4. Does the fact sheet document that a “reasonable potential” evaluation was performed?	X		
a. If yes, does the fact sheet indicate that the “reasonable potential” evaluation was performed in accordance with the State’s approved procedures?	X		
b. Does the fact sheet describe the basis for allowing or disallowing in-stream dilution or a mixing zone?	X		



<b>II.D. Water Quality-Based Effluent Limits – cont.</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>
c. Does the fact sheet present WLA calculation procedures for all pollutants that were found to have “reasonable potential”?	X		
d. Does the fact sheet indicate that the “reasonable potential” and WLA calculations accounted for contributions from upstream sources (i.e., do calculations include ambient/background concentrations where data are available)?		X	
e. Does the permit contain numeric effluent limits for all pollutants for which “reasonable potential” was determined?		X	
5. Are all final WQBELs in the permit consistent with the justification and/or documentation provided in the fact sheet?	X		
6. For all final WQBELs, are BOTH long-term (e.g., average monthly) AND short-term (e.g., maximum daily, weekly average, instantaneous) effluent limits established?	X		
7. Are WQBELs expressed in the permit using appropriate units of measure (e.g., mass, concentration)?	X		
8. Does the fact sheet indicate that an “antidegradation” review was performed in accordance with the State’s approved antidegradation policy?	X		

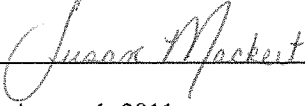
<b>II.E. Monitoring and Reporting Requirements</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>
1. Does the permit require at least annual monitoring for all limited parameters?	X		
a. If no, does the fact sheet indicate that the facility applied for and was granted a monitoring waiver, AND, does the permit specifically incorporate this waiver?			X
2. Does the permit identify the physical location where monitoring is to be performed for each outfall?	X		
3. Does the permit require testing for Whole Effluent Toxicity in accordance with the State’s standard practices?		X	

<b>II.F. Special Conditions</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>
1. Does the permit require development and implementation of a Best Management Practices (BMP) plan or site-specific BMPs?		X	
a. If yes, does the permit adequately incorporate and require compliance with the BMPs?			X
2. If the permit contains compliance schedule(s), are they consistent with statutory and regulatory deadlines and requirements?			X
3. Are other special conditions (e.g., ambient sampling, mixing studies, TIE/TRE, BMPs, special studies) consistent with CWA and NPDES regulations?			X

II.G. Standard Conditions	Yes	No	N/A
1. Does the <b>permit</b> contain all 40 CFR 122.41 standard conditions or the State equivalent (or more stringent) conditions?	X		
<b>List of Standard Conditions – 40 CFR 122.41</b>			
Duty to comply	Property rights	Reporting Requirements	
Duty to reapply	Duty to provide information	Planned change	
Need to halt or reduce activity	Inspections and entry	Anticipated noncompliance	
not a defense	Monitoring and records	Transfers	
Duty to mitigate	Signatory requirement	Monitoring reports	
Proper O & M	Bypass	Compliance schedules	
Permit actions	Upset	24-Hour reporting	
		Other non-compliance	
2. Does the permit contain the additional standard condition (or the State equivalent or more stringent conditions) for existing non-municipal dischargers regarding pollutant notification levels [40 CFR 122.42(a)]?	X		

### Part III. Signature Page

Based on a review of the data and other information submitted by the permit applicant, and the draft permit and other administrative records generated by the Department/Division and/or made available to the Department/Division, the information provided on this checklist is accurate and complete, to the best of my knowledge.

Name	<u>Susan Mackert</u>
Title	<u>Environmental Specialist II Senior</u>
Signature	<u></u>
Date	<u>August 1, 2011</u>